

INTERNATIONAL
INVESTMENT AND
DOMESTIC WELFARE

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INTERNATIONAL INVESTMENT AND DOMESTIC WELFARE

*SOME ASPECTS OF INTERNATIONAL BORROWING
AND LENDING IN THE POST-WAR PERIOD*

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TO MY
FATHER
AND THE MEMORY OF MY
MOTHER



P R E F A C E

THIS is an essay on international economic policy with particular reference to the postwar period. As such it deals with controversial issues on which a complete consensus is not to be expected. Nevertheless some common ground of understanding and agreement is an indispensable preliminary to the framing of policy issues. And it is mainly toward this end that the essay moves: it tries to contribute something to the understanding and appreciation of the basic elements that compose the international investment problem after the war. The volume does not pretend to be a complete analysis of all aspects of the postwar international investment problem. It is an essay, not a treatise.

Most of the manuscript was written in New York City between February and August, 1944. I am afraid that it still carries traces of the pressure under which it was written and which a variety of interruptions in the ensuing months have prevented me from eliminating altogether. For these I apologize to the reader and beg his forbearance. Yet if the volume has anything to say it had perhaps better be said now and not after all the tumult and controversy have become academic.

My obligations are numerous and some of the heaviest must remain unacknowledged. I am indebted first of all to the Social Science Research Council for a grant-in-aid which materially assisted my work. Mr. H. M. Ditisheim and Miss E. Frysick served as research assistants for several months under what must have been trying circumstances for them. I thank them sincerely. I should also like to thank Dr. Walter Hausdorfer and his staff of the Business Library of Columbia University whose many kindnesses extended far beyond what an author has any right to expect.

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As always, of course, the author is alone responsible for what finally appears in print.

N. S. B.

Berkeley, California

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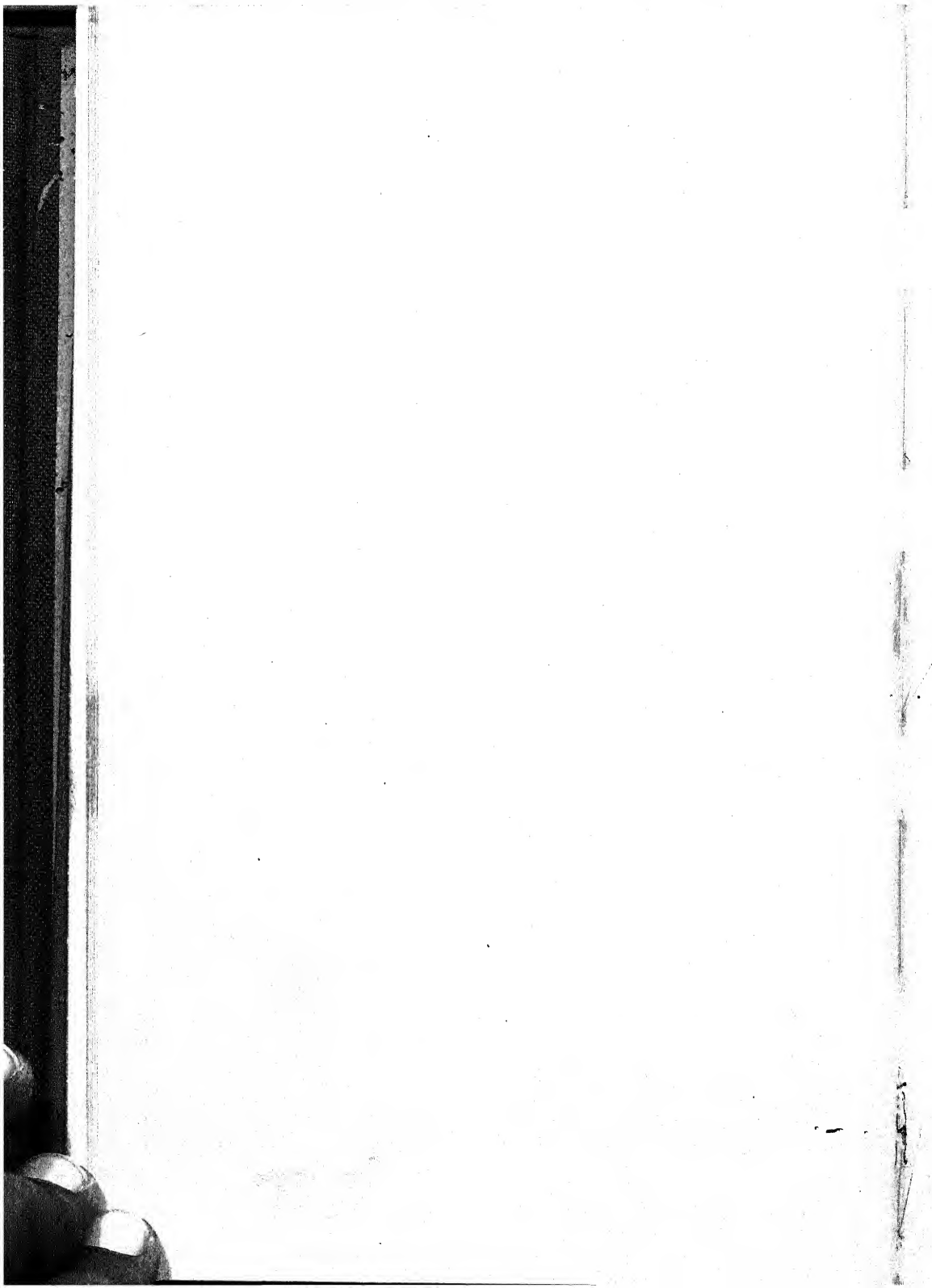
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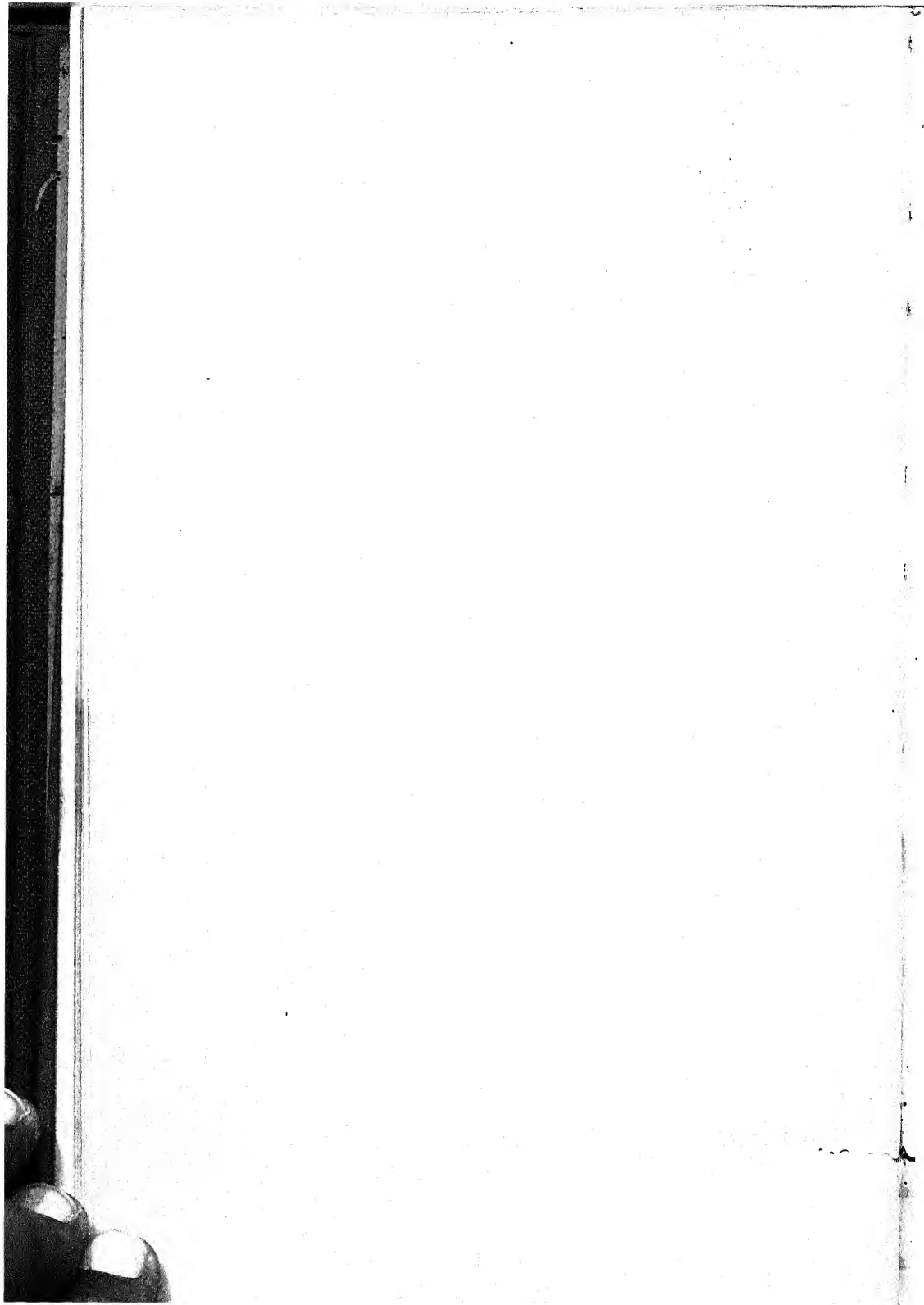
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PART ONE

RECONSTRUCTION, ECONOMIC DEVELOP-
MENT, AND FOREIGN BORROWING



INTRODUCTION

I

THE end of the present world conflict will bequeath a task of relief, rehabilitation, and reconstruction which promises to exceed anything of a similar nature ever undertaken. Moreover, reconstruction will be something more than the distribution of "K" rations and bowls of soup. The destruction and impairment of factories, industrial plants, railways, harbors, gas and electric works, and all the rest of the means of production by which civilized peoples provide themselves a living will have to be made good.

Reconstruction will be a manysided problem. But on the economic side it essentially consists in restoring an incurred diminution of real capital resources. The realized impairment to real capital will be especially great in three respects. First, bombing raids and advancing and retreating armies will have destroyed (and stolen) much real capital equipment in a simple physical sense. Any recent photograph from the battlefronts makes this fact abundantly clear. Second, real capital resources will be depleted severely, even though not physically destroyed, because they have been undermaintained in the waging of total war. Accumulated depreciation and obsolescence of industrial equipment will be substantial and will have to be made good before efficient production, and hence adequate consumption, is again possible. The third and final type of impairment to real capital resources will be the low level to which the real working capital of the economy—stocks of raw materials, goods-in-process, and finished goods of all kinds—is likely to have fallen by the time the war ends. Stocks of raw materials and finished goods in an amount largely dictated by technical considerations are a prerequisite to a high level of output in

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I

an economy. This problem was serious enough in Europe after the last war. Its magnitude will be much greater after the present conflict. Hence it is the diminution of real capital resources through outright destruction, through undermaintenance, and through the consumption of inventories, which reconstruction will seek to restore.

The means available to carry through the tremendous job of economic reconstruction after the war are three in number: gifts and reparations from abroad, loans from other countries, and the resources and productivity of the country or territory needing reconstruction. At the very outset of reconstruction, that is, immediately after hostilities cease, the primary reliance will be upon outright gifts from abroad because, at least in many areas, the local economies will be too disordered even to provide a minimum of food, clothing, and medical care. This is the phase of direct relief. The armed forces and UNRRA (United Nations Relief and Rehabilitation Association) have the responsibility for this stage of reconstruction.

It is reconstruction beyond the phase of direct relief, however, that is our concern in the pages that follow. Here there must be a clear recognition of the nature of the task as a problem of real capital accumulation: a restoration of real capital resources in order to raise the national output from the low levels that afford only a poverty standard of living to the population. The smallness of the national product will be a rough index of the deficiency of productive facilities imposed by the war.

2. p. 10
2. mod.
Capital accumulation on a large scale for reconstruction raises the question of assistance from abroad in the form of loans and possibly reparations.¹ Without loans from abroad the rate of capital accumulation for reconstruction is limited by the level of national income and its division between consumption and savings. Foreign borrowing allows capital accumulation for reconstruction to proceed more rapidly and/or with less restriction of consumption than is possible without it. Foreign borrowing can hasten and ease economic reconstruction.

¹ Reparations are at least as much a political and moral problem as an economic question. These are not sharply distinguishable to be sure but the fact should be kept in mind.

Borrowing abroad, however, raises the problem of repayment. And presumably there is a relationship between the repayment problem and the kinds of real capital accumulation that reconstruction will require. Consequently there is a connection between the basic economic characteristics of reconstruction as a task in real capital accumulation and the degree to which it is assisted by borrowing abroad.

II

ECONOMIC reconstruction will not be the only occasion for borrowing abroad to hasten real capital formation at the end of the war. It is also anticipated in many quarters that there will be international lending and borrowing to push the industrialization and general economic development of regions having a low per capita productivity and standard of living.

The ostensible object of economic development (including industrialization) is to raise real incomes through improving the means of production at the disposal of the people. Like economic reconstruction it is, from one point of view, a deliberate program of accelerated real capital accumulation. And again, as with reconstruction, the process can be facilitated by foreign lending. A recent writer visualizes international investment for purposes of economic development in the following terms:²

This flow of capital would undoubtedly take a variety of forms. Under favorable conditions, important amounts would go as direct investment by private firms of the lending countries for establishment of processing plants based on local raw materials, branch factories or assembly plants, distributing and technical service agencies, and the like. Other capital would be loaned to governments, to public development corporations, to private firms, or to mixed public-private corporations through the sale of securities in the financial markets of the advanced countries. Producers of equipment or their bankers would advance some capital to the newly developing countries in the form of long-credit terms, a process which might be facilitated by government funds, nationally or through an international agency. Other capital, which might be a large fraction of the total in the unsettled years of transition following the war and in the initial stages of opening a new region to comprehensive development, would be advanced by national or international public agencies.

² Staley, Eugene, *World Economic Development*, Montreal, International Labour Office, 1944, p. 36.

How much international investment of the sort described in the quotation is likely, appropriate, or necessary for the improvement of living standards in low-income areas is of course a large question.

But economic development loans are not entirely a question of who puts up the funds or who provides the guarantees; it is as well the process and the result that the loans are intended to achieve. Broadly speaking, the basic reasons for the low per-capita productivity in the underdeveloped areas are excessive population in relation to the land area and real capital available, and the low level of skills, proficiencies, and general knowledge possessed by the population at large. Making foreign exchange balances available to such countries is only one step towards improving their standards of living. In between the provision of the foreign balances and the attainment of higher standards of living factories must be built, roads constructed, harbors dredged, and the whole face of the economy refashioned.

The relation of these changes to the financial means by which they are achieved is perhaps not as simple and straightforward as might be supposed. This is especially true where there is foreign borrowing calling for repayment. Here again, as in borrowing for economic reconstruction, there is a connection between the borrowing and the kinds of and amount of real capital accumulation that economic development must assume if it is to raise real incomes.

III

AS INDICATED in the table of contents, Part One of the study is an attempt to analyze the problems of economic reconstruction and industrialization in relation to foreign borrowing. In the main the emphasis in Part One is upon the borrowing country with only passing reference to the problems of the creditor nation. The discussion begins in Chapter II with a brief analysis of the composition of real capital in order that we may have some landmarks from which to survey the problems of reconstruction and economic development. Since reconstruction and economic development are, from one point of view, problems of real capital accumulation, it seems useful to examine the composition and certain other pertinent characteristics of real capital resources. In this manner a

clearer recognition should emerge of the end result towards which capital accumulation for reconstruction and industrialization are presumably moving. Since capital depletion resulting from the war raises some special problems that reconstruction will have to cope with, the topic is considered in Chapter III. Chapters IV and V, respectively, examine some aspects of reconstruction and economic development as projects in capital accumulation. Chapter VI deals with the important question of the relation between real investment for reconstruction and economic development, foreign borrowing, and the resulting effects upon the balance of payments position of the borrowing countries. Chapter VII offers some concluding observations on the subject matter of Part One.

IV

INTERNATIONAL borrowing has its reverse aspect in international lending. And the lending has two phases. In the first the net outflow of new investment abroad exceeds the return flow in payment of interest and principal. In the second phase the inflow of payments on account of interest and principal exceeds gross new investment abroad.

Whereas Part One emphasizes the problems of foreign borrowing for reconstruction and economic development from the point of view of borrowing countries, Part Two considers the effect of both phases of capital export upon lending countries. In other words, Part Two concentrates upon the effects of foreign investment upon exports, imports, national income, and employment in the lending country. Here the discussion proceeds, however, not altogether on a strictly formal level but tries to examine these problems with special reference to the probable position of the United States in the postwar period. This approach seems warranted in view of the likelihood that the United States will be the prime creditor on capital account insofar as international lending and borrowing do occur and more or less regardless of the complicated banking and financial arrangements that may be established by the United Nations and their associates. International investment is scarcely an unexplored subject. Yet the nature of the postwar problem from the point of view of the United States seems to be imper-

fectly appreciated. Some fundamentals are in danger of being overlooked or given too little attention. In its crudest form this lack of understanding is manifest in the bland assumption that all the United States has to do after the war is to make large dollar sums available to the world at large and good-will and prosperity will pervade the earth. International investment is to be the universal passport to higher standards of living. In the pursuit of this laudable objective, however, there seems on the one hand to be a disregard for what is actually involved in increasing productivity and standards of living through providing factories, machines, transportation, harbors, etc., with the assistance of foreign loans and, on the other, a tendency to overlook the rather special economic position of the United States in world affairs. The American problem is far from being adequately solved by simply pointing to the policies and practices of creditor nations in times past. A host of differences exist and they must find expression in appropriate policy.

The sequence of discussion and analysis in Part Two is as follows: Chapter VIII sketches briefly the unique position occupied by the United States in the international economy. Chapter IX examines the relation between foreign lending and exports and considers the effect of postwar foreign lending by the United States upon the domestic economy during the phase of net capital export. Chapter X speculates on the probable consequences for the American economy of accepting the role of a mature creditor nation and thereby accepting imports in a volume commensurate with its previous investments abroad. Chapter XI considers the probable situation at the end of the war with respect to international balances and debtor-creditor relations between countries. The aim here is to gain some notion of the probable need for foreign borrowing, at least in the early years after the war.

The final chapter tries to bring to a focus the basic economic issues which American foreign economic policy must somehow encompass. There are also some suggestions and admonitions concerning the general character that American economic policy in the international sphere might appropriately assume. Naturally enough, these suggestions follow along the lines that the analysis of the earlier chapters seems to have marked out.

2 SOME ASPECTS OF REAL CAPITAL RESOURCES AND THEIR COMPOSITION

It was suggested in the previous chapter that, from an economic point of view, both reconstruction and economic development meant increasing total real capital resources. In reconstruction the task is perhaps largely to restore real capital resources that once existed, so that production and consumption may again assume their prewar levels. In economic development, the ostensible aim is to raise production and consumption by increasing the amount of real capital available to the economy. In both, however, the essence of the program on the economic side is to increase total real capital resources.

Accordingly it seems appropriate to pause in the present chapter to examine certain essential facts concerning the composition and characteristics of real capital resources. The excursus here will not carry us into highly theoretical discussions of the definition of "capital" or those other refinements in economics usually associated with the theory of capital. Our purpose indeed is mundane and humble. We wish to inquire of what real capital seems to consist, what types are relatively important in proportion to the total, and what characteristics of real capital seem to be most pertinent from the point of view of reconstruction and economic development with the assistance, perhaps, of foreign borrowings. The presentation is simple enough. Section I examines the composition of real capital in an attempt to emphasize the relative importance of the different things that are usually lumped together in the phrase real capital. Section II deals with industrial capital in some detail. Section III draws these threads together into a form useful as a guide throughout the remaining chapters.

✓ I. THE COMPONENTS OF NATIONAL CAPITAL

THE real capital resources of any country at any moment represent its inheritance from the past and an invaluable asset for the years to come. It will consist of a bewildering congeries of things: of railroads and highways, of harbors and docks, of houses and shops, of factories and their equipment, of stocks of raw materials and finished goods, of barns and chattels, of farm machinery and live stock, and of a host of other items too numerous to describe, catalogue, or mention. But together with the size and efficiency of its labor force a country's real capital affords its present citizens their means of living and well-being. But what does it consist of? What kinds of things with which we are all familiar are large and important and what small and trivial?

The composition of real capital resources and their aggregate amount in relation to population will undoubtedly vary from country to country.¹ But this fact is drawn from common observation rather than elaborate statistical compilations. There seem to be no comparable figures for a number of countries showing total real capital resources and their composition between one type and another. The best data relate to the United States which is not likely to require economic reconstruction or to be undertaking industrialization schemes under forced draft after the war. The lack of data for other mature countries is surprising.

✓ The non-existence of comparable data for countries other than the United States, however, is, for several reasons, not as devastating as might at first appear. In the first place one can probably presuppose a reasonable similarity of pattern in the composition of real capital resources between one industrial country and another.² Secondly, our interest in the composition of real capital resources grows out of the problems of economic reconstruction and deliberate industrialization. In other words, we want to know, in terms of real capital resources, what it is that will require reconstruction in the industrial countries and what is to be added to the others in the

¹ Were this not true, of course, then all the talk about industrializing and developing backward areas would be rather pointless.

² The argument for this assumption is postponed until later in the chapter.

process of becoming industrialized. Comparative national figures would measure the magnitude of the task but not reveal its essential character. It is for these reasons that an examination of the quantity and composition of real capital resources in a highly industrialized country like the United States is useful for our purposes. It should reveal what kinds of real capital are relatively important in a mature industrial economy and thus by inference shed light on the problems of reconstruction and planned economic development in this respect after the war. Let us therefore consider the real capital resources of the United States.

1. Real Capital in the United States

It seems useful to accept the classification of R. R. Doane who makes the broad distinction between "physical assets used for production" and "physical assets used primarily for consumption."³ The former embraces real capital used in manufacturing, transportation, mining, public utilities, agriculture, etc. In the latter we have "public" or government capital and, of course, consumers' capital as houses, furniture, and the like.⁴ According to Doane's calculations when the figures are broken down according to this general classification we obtain about the following approximations of the relative importance of the different types. In reading the table one should bear in mind that the absolute figures are less significant than the ratios of the figures one to another as an index

³ Doane, R. R., *The Anatomy of American Wealth*, New York, 1940. Much of what follows immediately has been aided by this study. The only comprehensive official effort to catalogue the real capital resources of the United States appears to be that by the Federal Trade Commission, *National Wealth and Income*, Sen. Doc. 126, 69th Congress, 1st Sess., Washington, 1926. More recently the National Resources Committee endeavored to adjust these figures to give a picture for 1935; but in the main their figures stem from the earlier study. Cf. *The Structure of the American Economy*, Part I, Washington, 1939.

⁴ It should not be assumed that it is easy to reach acceptable definitions for the proper division of various items between one category and another or even whether a particular item should be included or omitted. For instance, should one include roads and streets separately from the farms and apartment dwellings or should one assume that the values of the farms and houses already reflect the fact that the highways exist? These are bothersome problems in a refined calculation but are not particularly serious where the objective is merely to obtain a rough index of the relative importance of things as we are trying to do here.

of the relative importance of the different categories. Table I has been adapted from Doane.⁵

TABLE I
NATIONAL REAL CAPITAL RESOURCES OTHER THAN LAND
IN U.S.A.

(In Billions of Current Dollars)

	1922	1930	1938
<i>Physical Assets Used for Production</i>			
<i>Agriculture</i>			
Farm Business Buildings.....	5	6	4
Farm Equipment Incl. Livestock.....	8	9	9
	<u>13</u>	<u>15</u>	<u>13</u>
<i>Industrial and Commercial</i>			
Buildings.....	20	36	34
Equipment.....	16	24	20
	<u>36</u>	<u>60</u>	<u>54</u>
<i>Railroads</i>			
Buildings Incl. Tracks.....	12	16	13
R. R. Equipment.....	4	5	5
	<u>16</u>	<u>21</u>	<u>18</u>
<i>Utilities</i>			
Buildings.....	8	14	13
Equipment.....	5	8	7
	<u>13</u>	<u>22</u>	<u>20</u>
<i>Stocks of Goods, i.e., Not in Form for Final Consumption.....</i>			
	<u>14</u>	<u>11</u>	<u>11</u>
Total Used for Production.....	<u>92</u>	<u>129</u>	<u>116</u>
<i>All Buildings.....</i>			
	45	72	64
<i>Equipment.....</i>			
	33	46	41
<i>Stocks.....</i>			
	<u>14</u>	<u>11</u>	<u>11</u>
	<u>92</u>	<u>129</u>	<u>116</u>

⁵ We have omitted land although Doane includes it by types in his tables. Cf. *op. cit.*, pp. 120 and 148. We also omit gold and silver coin and bullion and "ships and equipment of the U. S. Navy." For 1922 total land value is set by Doane at \$112 billion.

The wisdom of omitting "land" from the calculations is perhaps debatable. Much that is classified as land is in reality the natural resource plus a lot of "improvements" that represent capital investment. A well-drained farm is something quite different from unbroken prairie land. And perhaps a good share of the total value of the land is traceable to such capital investments. But at this late date there is no way of separating the capital improvements from the "gift of nature." Another reason why I have omitted them is that land improvements tend to be (relatively) permanent in character: they are not easily destroyed and their maintenance costs tend to be nominal. Hence in economic

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	1922	1930	1938
<i>Physical Assets Used Primarily for Consumption</i>			
Structures			
Farm Dwellings.....	6	7	5
Non-Farm Residential Buildings.....	32	52	44
Public Tax-Exempt Buildings.....	8	22	28
	<u>46</u>	<u>81</u>	<u>77</u>
Other			
Motor Vehicles.....	4	6	5
Chattel Goods.....	40	59	39
Stocks of Goods in Final Form.....	22	16	16
Total Used for Consumption.....	<u>112</u>	<u>162</u>	<u>137</u>
<i>Recapitulation of All Physical Assets</i>			
Structures			
For Production.....	45	72	64
For Consumption.....	46	81	77
	<u>91</u>	<u>153</u>	<u>141</u>
Equipment			
For Production.....	33	46	41
For Consumption.....	44	65	44
	<u>77</u>	<u>111</u>	<u>85</u>
Stocks			
In Unfinished Form.....	14	11	11
In Finished Form.....	22	16	16
	<u>36</u>	<u>27</u>	<u>27</u>
GRAND TOTAL.....	204	291	253

reconstruction problems they may tend to be of fairly minor importance. In industrialization and economic development projects, however, land improvements may be one of the most important objects of capital investment. After considering the problem of inclusion vs. exclusion of land it seemed to me better to omit it.

Doane estimates (p. 147) that total land in the United States had a value in current prices of \$131 billion divided as follows:

	1930 \$ Billion
Land Used for Production	
Farm Land	35
Ind. & Comm. Land	21
R. R. Land	3
Utilities Land	3
	<u>62</u>
Land Used for Comfort	
Non-Farm Residential Land	56
Tax-Exempt Land	13
	<u>69</u>

The table is self-explanatory but attention may be drawn to a few of the more significant relationships. Perhaps the most noteworthy fact is the very high proportion which buildings bear to the total. Among physical assets used for production in 1930 buildings were \$72 billion out of a total of \$129 billion, or 56 per cent. In other words, of all physical assets (other than land) used for production more than one-half seems to consist of buildings and structures in which the productive activities are performed. From one point of view the "elements" are expensive. It is also noteworthy that "equipment" among productive capital is only about one-third of the total (35 per cent in 1930). Lastly, the very high proportion that railroads and public utilities bear to total productive capital—almost one-third—and their high ratio to industrial and commercial assets combined is suggestive.

Similar comments apply to physical assets used primarily for consumption. Buildings again account for a very high proportion of the total. The figure for chattels seems high, but on reflection may not be excessive since a highly developed, wealthy community has a vast accumulation of such things.

As we shall have occasion to note in due course, some important conclusions seem to stem from these elementary facts concerning the composition of real capital.

2. *Real Capital in Other Countries*

There are surprisingly few data on the size and composition of the real capital resources of countries other than the United States. And even for the United States the statistical material is doubtless of a much lower quality than for closely related concepts, for instance, national income.⁶ The careful work expended on the latter has no parallel in the former. The consequence is, apparently, that one can only approach the problem of the size and composition of real capital resources in countries other than the United States inferentially: one has to employ deductive analysis and attempt to guess the probable parallelism between areas for which data are available and those for which information is lack-

⁶ The problem is also much more complicated for many reasons. One has all the valuation problems of the usual sort and a number of special problems as well.

ing. This unsatisfactory procedure cannot be expected to yield more than rough approximations. But there appears to be no alternative.

Some indication of the aggregate quantities of real capital available in different parts of the world can be inferred from national income figures. National income differences are not of course a precise index of variations between countries in real capital available. Yet one would expect real capital resources per head and national income per head to show a high positive correlation even though the knowledge, skill, health, and work efficiency of the people (and other factors) will also affect national income. Hence some rough measure of the real capital resources available in different countries is provided by a comparison of national income figures.

The following figures in Table II have been compiled by Mr. Colin Clark from a variety of sources. Their margin of error is not constant from country to country and they are subject to many qualifications. Yet notwithstanding these limitations Table II gives at least a rough index of the amount of real capital available in the different countries.⁷

TABLE II

AVERAGE REAL INCOME PER HEAD IN INTERNATIONAL UNITS
OVER PERIOD 1925-34

U.S.A.....	1,381	Czechoslovakia.....	455
Canada.....	1,337	Greece.....	397
New Zealand.....	1,202	Finland.....	380
Great Britain.....	1,069	Hungary.....	359
Switzerland.....	1,018	Japan.....	353
Australia.....	980	Poland.....	352
Netherlands.....	855	Latvia.....	345
Eire.....	797	Italy.....	343
France.....	684	Estonia.....	341
Denmark.....	680	Yugoslavia.....	330
Sweden.....	653	U.S.S.R.....	320
Germany.....	646	South Africa.....	276
Belgium.....	600	Bulgaria.....	259
Norway.....	539	Roumania.....	243
Austria.....	511	Lithuania.....	207

⁷ From Clark, Colin, *The Conditions of Economic Progress*, London, 1940, p. 41. Table II measures the national income of the several countries in "international units" which is defined (pp. 40-41) as "the amount of goods and services which one dollar would purchase in the U.S.A. over the average of the period 1925-34 and data are reduced to this standard."

Perhaps the most important qualification to be kept in mind in reading the table is that the differences noted fail to be an index of national "well-being"

If we assume that Mr. Clark's compilations give at least a rough index of the material welfare of the people in the several countries and that low levels of national income suggest the insufficiencies of productive equipment—real productive capital—then one could certainly conclude that increasing the real capital available in these low income areas would be highly beneficial. Hence it is not surprising that many thoughtful persons are concerned with the progressive "industrialization" and "economic development" of low income areas as a major objective of the postwar world. There is no gainsaying the need or desirability of such programs. But the means for achieving the desired ends presents problems requiring analysis in subsequent pages.

3. *Preponderance of Immovable Assets*

When one turns from the aggregate *quantities* of real capital in the several countries (and to which national income figures afford some clue) to the *composition* of that real capital between one form and another recent data seem to be almost non-existent.

The probabilities are, however, that considerable similarity in the composition of real capital would be found to exist were the information available. Buildings and structures would be expected to bulk large in the total for any country.⁸ For less industrialized countries the ratio of "assets used primarily for consumption" to total real capital (other than land) might be expected to be relatively large because in most parts of the world housing and (some) furniture and personal belongings are indispensable even though standards of living are exceedingly low. Natural resources and the degree of their development would of course exert their influence upon the composition of real capital. Some countries might be expected to show a composition of real capital more like the state of Nevada and others more like Connecticut. In each case natural resources, climate, population, past historical development, etc.,

in a complete sense. No one would care to argue that the average Swede was less than half as well off as the average Canadian if he had observed life and living in the two countries. Too many incommensurables enter in to make any such judgment defensible.

⁸ In non-industrial countries such industrial capital as does exist would probably consist mostly of buildings; equipment would be comparatively unimportant, one would suppose.

have conditioned the composition of real capital. But as to what that composition is in any precise sense little or no information of an overall sort is apparently available.⁹

4. *Relation of Real Capital to Foreign Borrowing After the War*

If it be true that in any country a large portion—perhaps 50 per cent or more—of the total real capital resources consist of buildings and structures, then it follows that economic reconstruction and development through foreign borrowing and lending operates within certain restrictions.

⁹ For Japan we have a study of the composition of national wealth in 1930 by Shiomi, S. ("On the National Wealth of Japan in the Year 1930," *Kyoto University Economic Review*, Vol. IX (1934), pp. 16-32) from which I have strung together some sentences that appear on pp. 27, 29, and 30 to form the following:

"Of the total amount of national wealth, land accounts for 37 per cent, and buildings for 21 per cent. These two items combined thus constitute 58 per cent of the total national wealth. . . . Buildings can be divided into dwellings and non-dwellings. The values of dwellings are very high, constituting 11 per cent of the total amount of the national wealth and 19 per cent of that of private-owned property. . . . Furniture and household goods and chattels rank third in the size of their percentage to the total, as they constitute 11 per cent of the national wealth."

When we recall that these percentage figures include land in the total then the similarity with American figures is surprising. Whereas all buildings in U.S.A. were something less than 50 per cent of total wealth excluding land the corresponding Japanese figure seems to be about 33 per cent. Railroads and public utilities in U.S.A. seem to be about 15 per cent (1930) of all wealth excluding land whilst the corresponding Japanese figure is about 10 per cent. Further detailed comparisons do not appear possible. But one fact stands forth sharply: in both the U.S.A. and Japan buildings constitute a large fraction of total real capital resources used for production and consumption.

Some information on the British situation with respect to National Capital will be found in Stamp, Sir Josiah, *The National Capital and Other Statistical Studies*, London, 1937. But I have not found it possible adequately to reconcile the results of the "multiplier" method there used with those of the American "inventory" method so that few comparisons would really be proper and meaningful. The tables on pp. 30-31 calculate buildings at a figure of about 24 per cent of "net worth" in 1935. Also furniture and movable property are calculated at a figure about 31 per cent as large as buildings, or about 8 per cent of total net wealth.

It is reported that for 1926-1927 the national wealth of Poland was estimated by an official study at approximately 137,500 zlotys of which 47 per cent was said to be agricultural property and 30 per cent industrial property. Wellisz, L. *Foreign Capital in Poland*, London, 1938, p. 175.

.. It is not indicated of what the other 23 per cent consisted.

On the reconstruction side much that will have been destroyed by the war will be buildings and structures which cannot by their very nature be either exported or imported. Foreign borrowing may make it easier for the reconstruction to take place. But direct reconstruction by means of the direct importation (on borrowed funds) of what has been destroyed will be physically impossible insofar as the depletion of real capital resources stemming from the war is the damage and destruction of immovables in the form of houses, apartments, factory buildings, bridges, harbors, railroads and public utilities. Even the raw materials for the reconstruction of this type of capital good will not need to be imported from abroad since they consist largely of sand, gravel, cement, bricks, and timber which are nearly ubiquitous. To be sure some building timbers and structural steel might be imported but the cost of these will be trifling in comparison to the total cost of the structures. It would seem to follow, therefore, that the assistance that loans can afford must largely be of an indirect sort rather than the direct replacement of what has been destroyed. It may be that what loans are provided will be largely in the nature of a "grub-stake," to borrow a term from American frontier history, and will be the means whereby the countries endeavoring to reconstruct will be able to devote more of their labor to real capital investment (reconstruction) and repairs than would otherwise be possible. But in large measure the foreign borrowing will provide indirect rather than direct assistance.

Similar considerations seem to apply with respect to foreign borrowing for purposes of industrial or economic development. What happens when an economy industrializes is that it comes to acquire more factories, mines, railroads, power plants, harbor facilities, navigable rivers through dredging, roads, and (now) perhaps airfields. But to a marked degree the bringing of these capital assets into existence means laying brick upon brick and moving tons of earth from one place to another. Because of what is involved in a simple, crude, physical sense in achieving industrialization and "economic development" there are obvious limits on the kind and amount of direct assistance that *can* be secured from abroad. The help that loans from abroad can supply is for the most part indirect and restricted to certain segments of the whole process. It can scarcely ever be simple and direct. Without pausing here to

examine the process in any detail we may note in passing that in large measure what foreign borrowing does is to free some productive resources from the necessity of providing for current consumption needs of the population. This is what we meant above by "grubstaking": the lending country allows the borrowing country to consume much as before but at the same time to push reconstruction or industrial development. If there were no borrowing, reconstruction and industrial development would be limited to those productive resources which could be spared from supplying current consumption needs. Borrowing increases the resources that can be spared. But it should be constantly borne in mind that, in the main, only home resources and domestic materials can directly effect the reconstruction or industrialization simply because so much real capital is immovable in international trade.

Indeed the whole tenor of the argument of the present section (Section I), emphasizing the importance of the results of construction in total real capital resources, is borne out by the data showing the high proportion of construction activity in gross capital formation. Table III shows the relation between construction (by types) and other forms of gross capital formation in alternate years since 1929.¹⁰ The pre 1929 years show an even greater preponderance of construction in the total.

TABLE III
CONSTRUCTION AND GROSS CAPITAL FORMATION IN MILLIONS
OF CURRENT DOLLARS *

Year	Producers' Goods				Consumers' Durable Goods
	Private Construction	Public Construction	Total Construction	Equipment	
1929.....	8,257	2,411	10,668	7,326	9,863
1931.....	3,770	2,577	6,347	4,203	6,320
1933.....	1,269	1,216	2,485	2,099	3,426
1935.....	2,048	1,449	3,497	4,032	5,646
1937.....	3,710	2,038	5,748	6,284	7,556
1939.....	3,852	2,515	6,367	5,382	7,122
1941.....	5,472	5,884	11,356	14,490	10,310

* Adapted from "Markets after the War" Sen. Doc. 40, 78th Congress, First Session, pp. 25-26.

¹⁰ More detailed analyses have appeared in *Survey of Current Business*. See also *infra* Table IX.

From many points of view the composition of *total* real capital—productive capital and consumption capital—is less important for our purposes than the composition and certain other characteristics of productive, i.e., industrial, capital resources. Let us therefore return to the main theme of the present chapter.

II. INDUSTRIAL REAL CAPITAL

FROM the point of view of reconstruction and planned economic development industrial real capital in the broad sense is perhaps the most important portion of a nation's real capital resources. For it is largely the productive capital that affords the luxuries and necessities that make up the real income of a people. Although houses and industrial plant may represent an equal investment measured in original cost they would probably not claim the same priority in a rational program of reconstruction.

But industrial capital subsumes a number of unlike things if one includes railroads and public utilities as we shall here. Fortunately its composition has been more carefully examined than consumers' capital and government capital, so that better data concerning it are available. But what pattern does it follow? What types of industrial capital represent a large share of the total?

1. Pattern and Distribution of Total Industrial Capital in U.S.A.

The percentage distribution of industrial capital in the United States for 1929 and 1934 is shown in Table IV. These are book value figures for corporations as compiled from United States Treasury data by Solomon Fabricant. They understate the importance of agriculture service and trade in the total because the non-corporate form of enterprise is common in these industries. Probably most of the difference between Doane's estimate of \$129 billion and Fabricant's figure of \$118 billion is to be explained in this way.

Possibly the most striking feature of the table is the very high proportion of the total industrial capital represented by railroads and public utilities. We had already observed this fact in the more general analysis compiled by R. R. Doane. But even making some mental reservations for the doubtless more liberal valuations as-

TABLE IV

BOOK VALUES OF CAPITAL ASSETS (LESS RESERVES) OF CORPORATIONS BY INDUSTRIES AS A PER CENT OF THE TOTAL—
1929 AND 1934 ¹¹

(Current Prices)

<i>Industrial Group</i>	<i>1929</i>	<i>1934</i>
Agriculture and Related Industries.....	1.09	1.22
Mining.....	6.24	5.68
Manufacturing		
Food and Tobacco.....	3.16	2.85
Textiles.....	2.08	1.77
Leather.....	.23	.18
Rubber.....	.42	.38
Lumber.....	1.48	1.22
Paper.....	1.04	1.00
Printing and Publishing.....	.78	.73
Chemicals.....	5.16	5.00
Stone, Clay, and Glass.....	1.13	.97
Metals.....	7.92	7.45
Misc. Mfgr.....	.64	.49
Total Mfgr.....	24.03	22.04
Construction.....	.75	.46
Transportation and Other Public Utilities.....	44.40	48.45
Trade.....	4.29	3.58
Service.....	3.36	5.05
Finance and Real Estate.....	15.57	13.45
Miscellaneous.....	.06	.07
GRAND TOTAL, Per Cent.....	100.00	100.00
GRAND TOTAL, Millions of \$.....	118,465.30	105,362.30

signed to railroad and public utility assets, it is yet startling to find that they together were almost twice as large as the total capital assets in all manufacturing. It would seem that an extremely high proportion of all productive capital assets is to be found in railroads and public utilities. They are costly. They are capital

¹¹ From Fabricant, S., *Capital Consumption and Adjustment*, New York, National Bureau of Economic Research, 1938, pp. 248-49. The original table gives the same information for the years 1926-1934 inclusive. The percentages are calculated from figures that exclude land and inventories. Figures for land (for 1934) in relation to other fixed assets prepared from Treasury data and nearly comparable to the above are to be found in *ibid.*, p. 271.

intensive. They represent perhaps 40 per cent of the total even in a highly industrialized country like the United States.¹²

The table speaks for itself, but attention may be directed to a few relationships. It seems surprising that "Finance and Real Estate" are almost five times as large as "Food and Tobacco" as a component of the total. Even with due allowance for non-corporate enterprise the capital investment in agriculture, construction, trade, and service seems surprisingly small.

2. *Real Capital in Manufacturing*

Although manufacturing as a whole is only about one-quarter of the total of all capital assets of a productive sort it is in many ways of special significance for some of our problems. For countries endeavoring to industrialize their economies the encouragement of manufactures is often high up on the agenda. For this reason it is worth examining the composition of capital assets in manufacturing between the different industries in the United States in some detail.

According to data prepared by Solomon Fabricant, total capital assets in manufacturing (at net book value) increased in the United States from \$4,845.3 million in 1904 to \$21,238 million in 1937.¹³ Table V shows the composition of this total between industries in dollars and (for 1937) in percentages. The other columns in Table V are included for purposes other than our immediate interest.

Perhaps the most surprising relationship revealed by Table V is the high proportion of Petroleum Products and Iron and Steel Products to the total of all capital assets in manufacturing: almost one-third of the total of all manufacturing. Foods and textiles are also sizable. The smallness of tobacco and leather is more marked

¹² The 40 per cent figure is conservative. Fabricant writes (*op. cit.*, p. 249), "But it is clear that almost half of the property, plant, and equipment of all American corporations was held by public utilities, a regulated industry. Together with service and real estate this group accounted for almost 70 per cent of total corporate capital assets, leaving but 30 per cent in the remaining industries. Even if allowance is made for the property of unincorporated firms in the latter industries, the figure is striking."

¹³ Fabricant, Solomon, *Employment in Manufacturing, 1899-1939*, New York, National Bureau of Economic Research, 1942, p. 257. The percentages in Table V have been compiled by the writer. Otherwise the table is as presented by Fabricant.

TABLE V

MAJOR GROUPS OF MANUFACTURING INDUSTRIES

(Net Book Value of Capital Assets, and Capital Assets per Wage Earner, 1904 and 1937)

Group	Capital Assets (Excl. Land) Net Book Value		Per Cent of Total 1937	Capital Assets (Excl. Land) per Wage Earner	
	1904	1937		1904	1937
	(Unit: \$1,000,000)			(Unit: \$1)	
Foods.....	525.9	2,269	10.7	1,465	2,876
Beverages.....	299.2	562	2.6	4,400	6,535
Tobacco Products.....	29.7	84	0.3	187	913
Textile Products.....	740.4	1,703	8.0	628	929
Leather Products.....	112.4	142	0.7	423	428
Rubber Products.....	26.4	235	1.1	600	1,808
Paper Products.....	204.8	1,272	6.0	1,638	4,818
Printing and Publishing....	223.0	651	3.0	970	1,844
Chemical and Coal Products	319.5	1,415	6.6	2,075	4,224
Petroleum Products.....	65.2	3,554	16.7	3,835	42,819
Stone, Clay and Glass Prod- ucts.....	270.6	982	4.7	911	2,976
Forest Products.....	370.5	1,142	5.4	489	1,611
Iron and Steel Products....	759.6	3,284	15.5	1,589	3,442
Nonferrous-Metal Products.	201.2	537	2.6	1,059	1,622
Electrical Machinery.....	50.7	396	1.9	792	1,282
Machinery, Other Than Elec- trical.....	436.8	1,128	5.4	1,002	1,406
Automobiles, Incl. Bodies and Parts.....	8.0	982	4.6	667	2,050
Transportation Equipment Other Than Automobiles.	141.0	434	2.0	705	2,893
Miscellaneous Products....	60.4	467	2.2	444	2,123
TOTAL MANUFACTURING	4,845.3	21,238	100.0	937	2,474

than might have been expected. And one would not have anticipated that in a highly industrialized country, such as the United States in 1937, that Forest Products, and Machinery Other Than Electrical, would be almost identical in size when measured by net book value of capital assets. Further study reveals other unexpected relationships.

3. Capital Intensity and Its Variations in American Manufacturing

It is commonplace in economics that there are marked variations between industries in the "degree of capital intensity." From one

point of view the degree of capital intensity is nothing but the relationship between annual value of product of the industry and the total capital investment committed to it. It is not to be confused with the proportion of the total capital investment in capital assets between one industry and another. The latter shows the relative importance of any *particular* industry as a component of *total* capital investment, for example, in manufacturing as a whole. The "degree of capital intensity," on the other hand, shows which industries use much capital equipment per unit of output. And since an industry could be highly capital intensive without necessarily being the repository of a total investment that is large relative to the whole there is no reason to expect to find the one where we find the other.

The relevance of the degree of capital intensity for reconstruction and planned industrialization projects with the assistance of foreign borrowing is reasonably obvious. There will often be a choice between projects having (approximately) the same investment cost but having widely differing values of annual product. If investment funds are limited, the wise policy, in the absence of special considerations, would be to undertake first those investments having a high value of annual product relative to the investment necessary to bring them into existence. And there are other reasons pertaining to the balance of payments problem that reinforce this judgment.

Let us examine some American data pertaining to the degree of capital intensity.

An oblique index of capital intensity is afforded by comparing industries by reference to the capital investment per wage earner, i.e., how much "capital" does each wage earner have with which to work. In Table V we observe some marked variations. In 1937 the capital per wage earner was apparently about ten times as high for petroleum as for leather products. Beverages, paper products, and chemical and coal products were also relatively high in the amount of capital utilized per wage earner.

Since Table V uses broad classifications it undoubtedly conceals a number of wide variations within each manufacturing classification.

Charles A. Bliss has presented some interesting data on this point.

drawn from manufacturing in the state of Pennsylvania.¹⁴ Table VI gives some indication of the wide variations that were found to prevail. For the Pennsylvania data analyzed the range for 1929 among dominantly consumption goods was from \$17,974 for gasoline to \$563 for women's clothing. The median was \$4,039. The corresponding median for dominantly capital goods was \$6,445, with a range from \$19,658 for pig iron to \$3,511 for steel castings.

Bliss was also able to examine pertinent data for manufacturing for Massachusetts which allowed a comparison between capital investment and sales, i.e., between total investment and the value of the annual product sold.¹⁵ Without reproducing here the specific figures we may note Bliss' generalization which runs as follows:¹⁶

Among the industrial groups with relatively high ratios of capital to sales are petroleum and coke, stone, clay, and glass, machinery, rubber, and lumber and paper products. The ratio is low in foods where, as we have seen, raw material is the principal item in cost. It is low in the leather and textile groups where the labor and material costs are high. There is considerable variation, however, within each group, . . .

It is when one turns from manufacturing to railroads and public utilities, however, that capital intensity appears in an extreme form. Though these are facts of common knowledge it is useful to place them in perspective.

As an average for all manufacturing in Massachusetts in 1928 total capital employed (not merely capital assets) was 92 per cent of the value of the product. In other words, on the average it took an investment of 92 cents to produce one dollar of product value.

Consider now railroads and public utilities by contrast. According to the United States Treasury department the net capital assets in 1939 of 106 railroad corporations (net income corporations and no net income corporations combined) were \$18.8 billion. In the same year gross receipts from operations were \$3.69 billion. Thus, for each \$1 of gross revenue there was an investment in net *capital* assets of \$.51. In the same year for net income corporations only

¹⁴ Bliss, Charles A., *The Structure of Manufacturing Production*, New York, National Bureau of Economic Research, 1939, pp. 109-110. Bliss gives figures for more industries than I have included in Table VI.

¹⁵ *Ibid.*, pp. 98 ff. Value of product sold is not precisely the same as value of product since there might be investment or disinvestment of inventories.

¹⁶ *Ibid.*, pp. 98-99.

TABLE VI

CAPITAL INVESTMENT PER WAGE EARNER, PENNSYLVANIA,
1929¹⁷

Dominantly Consumption Goods	
Gasoline.....	\$17,974
Ice, Manufactured.....	16,922
Oils.....	15,025
Chocolate and Cocoa Products.....	13,061
Beverages.....	12,105
Ice Cream.....	10,533
Clothing, Men's.....	900
Cigars.....	851
Clothing, Women's.....	563
Dominantly Capital Goods	
Pig Iron.....	\$19,658
Coke.....	15,027
Cement.....	13,926
Bars, Iron and Steel.....	10,026
Billets, Blooms and Slabs.....	9,854
Engines, Railroad.....	9,034
Glass and Products.....	3,660
Plumber Supplies and Fittings.....	3,537
Structural Iron and Steel.....	3,537
Castings, Iron and Steel.....	3,511

(i.e., omitting the unprofitable enterprises) the corresponding figure for communications enterprises was \$2.75 and "other" public utilities \$4.97.¹⁸

There is thus more than one sense in which the railroads and public utilities are "key" industries. Here we have capital intensity with a vengeance.

4. Real Capital: Inventories

In considering industrial real capital resources one must recognize that they by no means all take the form of "capital assets" such as buildings, machinery, and the like. There are also inventories. And from the point of view of the economy as a whole and its efficient operation these are equally a permanent and indispensable investment with more durable assets. Manufacturing ma-

¹⁷ From Bliss, *op. cit.*, pp. 109-110.

¹⁸ U. S. Treasury, *Statistics of Income for 1939*, Part II, pp. 33-34.

chinery is useless without raw materials to feed into it: shops and showcases are worthless without merchandise to sell. Hence inventories constitute an important segment of total productive real capital resources.

The size of inventories in comparison with other productive assets is roughly suggested by Table I. Here we observe that in 1930 total inventories (stocks) were \$11 billion in unfinished form and \$16 billion in finished form, i.e., about 9.2 per cent of *total* assets other than land of all kinds (\$291 billion), or approximately 12.4 per cent of productive capital (\$129 billion).¹⁹

Possibly a more relevant comparison to suggest the importance of inventories is to relate them to plant and equipment. On this basis the ratio in 1930 is 27 to 118, or almost 23 per cent. But since where both are measured in dollars the annual changes in inventories will be large relative to the annual changes in plant and equipment it is doubtful if the ratio for any one year means very much.

It is in manufacturing and trade, of course, rather than in mining, agriculture, railroads, and public utilities that inventories are of major importance. In 1930, for example, inventories in manufacturing and trade accounted for \$20 billion out of the total of \$27 billion. But even here there are marked differences between the several branches. In tobacco, textiles, and leather inventories seem to be relatively large. In machinery, cutlery, and bread-making they are apparently small.²⁰

The detailed analysis of inventories, however, is of doubtful usefulness for our purposes for several reasons. In the first place, they are highly variable in value (rather than physical) terms from year to year, so that no annual figure is particularly significant. Secondly, there are substantial deviations between different branches of the same industry, so that only a very detailed analysis would be of much usefulness. Finally, there are marked geograph-

¹⁹ So far as I can determine Doane classifies stocks of goods into two parts: used for production and used primarily for consumption. But used for consumption as applied to stock does *not* mean in the hands of consumers. Rather it means in finished form and held by business firms. In no other way can I harmonize what appears in Doane, *op. cit.*, pp. 120, 148 with what appears on p. 235. Stocks of consumption goods held by consumers are presumably included under chattels.

²⁰ See Bliss, *op. cit.*, p. 224.

ical differences in practice between one part of the country and another and probably even greater differences between one country and another. Credit practices, the availability of transport, habit and custom, and often style factors are probably much more important than technical considerations in determining inventory practices. Consequently there is little reason to expect any great similarity of pattern from one country to another.

5. *American Data and Productive Capital Elsewhere*

The foregoing relates almost exclusively to the composition and characteristics of industrial real capital in the United States. Yet it is possible by making a few not unreasonable assumptions to draw some inferences concerning industrial capital in other countries.

The industrial pattern and composition of real capital of any country should theoretically be the consequence of the joint operation of three factors. First, the trade and commercial policy of the country. Second, the relative prices of the factors of production. Third, the technical requirements of the industrial processes themselves.

As to trade policy one might expect it to show its whole effects through altering the relative prices of the factors of production and hence it could be properly subsumed under the second factor. Yet the competitive process is probably not sufficiently rapid and smooth in its operation that one can assume that the sheltering of an industry from foreign competition through protective tariffs, for example, will quickly spread its effects upon factor prices and earnings throughout the whole economy. Consequently one might properly regard the pattern of industrial production and the composition of productive real capital in any country at any point in time as the consequence of whatever trade policy has been in operation currently and in times past.

As between relative factor prices and technical requirements as the major determinant of a country's industrial pattern, it is not easy to choose. The relative prices of productive factors reflect their abundance or scarcity in relation to one another and in relation to the demand (uses) for them. If labor is plentiful and capital scarce, labor will be (relatively) cheap and capital (relatively)

dear. And so with land and raw materials and all the many varieties of labor capacity and capital instruments. In general, specific products will be produced by those factors of production in those proportions which have the lowest cost. Thus, if there are marked differences in the relative prices of the productive factors one would expect marked differences in the degree of "capital intensity" in particular industries between one country and another and, consequently, significant deviations between the composition of total industrial capital between one country and another.

The degree to which each country will substitute inexpensive factors of production for relatively more costly factors, however, is subject to the limiting factor of the technical substitutional possibilities actually available. The technical requirements set the limits within which it is possible or feasible to obtain the same result by alternative factor combinations. Furthermore, if one method of production is vastly superior to all others it will probably be used more or less regardless of the combination of cheap and costly production factors which it imposes.

The consequence is that the industrial pattern of different countries is likely to be determined, apart from trade policy, on the one hand by relative factor prices and, on the other, by the technical substitutional possibilities. Which of these last two is likely to dominate in the sense that it is the more nearly *crucial* consideration probably cannot be answered in general terms. The answer doubtless varies greatly from industry to industry. In agriculture one would suppose that relative factor prices were the prime determinant. Yet in the chemical or steel industry, or in railroading or electric power, one would suppose that technical requirements very nearly fixed the combination. And one might even guess that these were likely to be the prime causal factor at work in most manufacturing industries.

If one presupposes a tendency towards a general similarity of pattern with respect to the distribution of real capital resources between industries in the major industrial countries, he is essentially contending that technical considerations exert greater influence than, say, the cheapness of labor in relation to capital, or the trade policy imposed by the government.²¹ In the main the

²¹ An alternative formulation would be that if in railroads, public utilities, and manufacturing technical factors dominate then the whole pattern would

writer is inclined to believe this to be true. The technical superiority of one process over another is probably more important in shaping the manner in which the production of given products is carried on in *industrialized countries* than the comparatively smaller differences between factor prices. In other words, the same industries are likely to use much the same techniques in Germany, France, Great Britain and the United States because those techniques have a large margin of superiority over alternative methods. The technical considerations outweigh the differences in factor prices. Of course where the differences in relative factor prices are quite large, they can overbalance such technical considerations and dictate a radically different combination of the factors as the more "economical." Thus Germany and England, for example, might be expected to conduct an industry with much the same combination of productive agents; but not the United States and China where relative factor prices differ greatly.

Apropos of this problem we have an interesting comparison by L. Rostas of the structure of manufacturing production in Great Britain, Germany and the United States.²² Table VII presents the comparison in terms of net output and employment. While the parallelism is far from perfect, the divergencies are less than might have been supposed: the contribution of different industries to net output is surprisingly similar. But we need to be careful in using these figures as an oblique index of the proportionate distribution of real capital between industries. Mr. Rostas' figures relate to the relative importance of different industries as contributors to net *output* and as sources of employment: the composition of total real capital resources as between industries need not necessarily show the same percentage distribution. If the degree of capital intensity varied significantly in the several industries the composition of total real capital would vary too. Nevertheless, Mr. Rostas' figures indicate a rough similarity in the composition of industrial output in the three countries. If technical factors play a large role in the production process (as already argued) then pos-

tend to be similar between industrial countries because these three constitute so much of the whole of industrial capital investment: these, in the main, *are* the industries where industrial capital is to be found.

²² Rostas, L., "Industrial Production, Productivity and Distribution in Britain, Germany, and the United States," *Economic Journal*, April, 1943, pp. 39-54.

sibly the proportionate distribution of real capital between industries may not vary so markedly in the three countries.

TABLE VII

THE STRUCTURE OF MANUFACTURING PRODUCTION

(Proportionate Importance of Different Branches of Industry in Total Output and Employment—Percentages) ²³

	Net Output				Employment			
	U.K.	Ger- many	U.S.A.		U.K.	Ger- many	U.S.A. ²⁴	
	1935	1936	1935	1937	1935	1936	1935	1937
Iron and Steel.....	9.9	16.5	11.2	13.6	10.6	16.1	12.2	13.6
Engineering, Ship- building and Vehi- cles.....	21.0	21.4	18.3	21.3	21.4	19.4	16.1	18.4
Non-Ferrous Metal.	2.5	2.4	3.1	3.4	2.4	1.8	3.0	3.2
Chemicals.....	7.4	9.9	9.8	9.5	3.8	5.0	5.2	4.9
Textiles.....	13.3	11.0	8.0	7.2	20.5	15.2	15.1	13.4
Clothing.....	6.9	4.0	7.7	6.3	10.4	5.6	11.5	10.5
Leather.....	0.9	1.0	1.4	1.1	0.9	1.5	1.5	1.4
Rubber.....	1.2	1.0	1.7	1.5	1.1	0.9	1.6	1.5
Clay and Stone....	4.5	6.7	3.2	3.5	4.8	9.5	3.2	3.5
Timber.....	3.2	4.0	4.7	5.0	3.8	6.1	8.0	8.1
Paper and Printing.	9.5	5.7	11.8	10.5	7.9	6.4	7.5	7.2
Food, Drink and To- bacco.....	17.0	14.0	16.5	14.6	10.1	10.2	12.3	11.4
Miscellaneous ²⁵	2.5	2.4	2.6	2.5	2.4	2.3	2.8	2.9
TOTAL FACTORY								
TRADES.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

6. Summary

It is almost gratuitous to attempt to summarize what is itself summary in character. Yet a few of the threads spun in this rather lengthy section may be drawn together in conclusion.

We have noted that productive real capital, at least in the United States, is heavily weighted with railroads and public utilities. Together these two industries account for perhaps 40-50 per cent of the whole, even after all reasonable allowances. They are also almost twice as large as the whole of manufacturing as a repository

²³ Computed from Censuses of Production data. German and American data were regrouped to cover British Categories.

²⁴ Based on number of operatives.

²⁵ Includes scientific instruments, games, toys, sport requisites, etc.

of industrial capital investment. By contrast agriculture and construction represent almost a negligible component.

The composition of industrial capital in manufacturing reveals the proportionately heavy investment in metals and chemicals and the relatively small investment in leather products and rubber products. The more detailed breakdown of manufacturing in Table V cannot be adequately summarized here.

We have also observed significant differences in the degree of capital intensity (technically the ratio between capital investment and annual value of product) between the several categories that constitute the whole of industrial real capital. On the average it is higher for capital goods, other than construction, than for consumers' goods. But some consumers' goods also require large amounts of capital in relation to labor employed or to value of product; for example, manufactured ice, chocolate and cocoa products, and beverages. Among the capital goods industries pig iron, coke, cement, and iron and steel bars seem to require much capital investment per wage earner. Yet it is in railroads and public utilities that we find capital intensity most marked. Roughly speaking, the degree of capital intensity in railroading is about five times as great as that in manufacturing considered as a whole.

An effort to guess the probable composition of industrial capital in countries other than the United States and, by the same token, the comparable degree of capital intensity in essentially the same industries is fraught with real difficulties. The prime determinants on an analytical plane would appear to be past and present trade policy, relative prices of the factors of production, and the technical requirements imposed by the productive processes themselves. Some reasons were adduced for expecting that in railroads, public utilities, and perhaps much manufacturing technical requirements were likely to override the influence of relative factor prices in fixing the methods of production employed and, hence, the composition of industrial capital. At least this appears reasonable as between one industrial country and another, if not between industrial and non-industrial countries. But since railroads, public utilities, and manufacturing bulk large in the total of industrial capital in the United States, and since these *are* the industries in which technical requirements are likely to override relative factor

prices, the inference is not unwarranted that the composition of industrial (productive) capital equipment is likely to be reasonably similar between one industrial country and another. Some empirical confirmation of this reasoning is to be found in a comparison of the composition of industrial output in Great Britain, Germany and the United States.



3 WAR AND CAPITAL DEPLETION

I. INTRODUCTION

Damage by war

① BECAUSE modern war impairs productive resources and weakens their effective organization it is likely to lower real incomes and standards of living. The damage to human productive resources is the persons killed, maimed, or incapacitated for peaceful pursuits. And from any ethical or moral point of view this shattering of human lives is almost the only consequence that matters. But war also is likely to reduce the non-human resources available for production. Factories are destroyed. Bridges are blown up. Power plants are dynamited. And real capital goods that are not physically destroyed are likely to fall into a state of disrepair and under-maintenance because there are not sufficient materials and manpower to maintain them and wage total war at the same time.

②

③ Finally, on the side of production, the modern economy is likely to suffer damage during the war to the complicated system of interrelationships that characterizes its working parts. Hence real incomes are likely to be lower after the war because the war will have reduced real productive resources and because it will have damaged the effectiveness with which they are integrated for the production of goods and services for human use.

In the present chapter we wish to consider the toll of war in terms of the depletion of real capital resources. In Chapter II we have seen something of the composition and characteristics of real capital resources which, in conjunction with human labor and ingenuity, are the source of that flow of goods and services that constitutes real income. We wish to consider how real capital as a productive resource is affected by modern war.

Although their relative importance will vary widely from area

to area, the capital depletion resulting from the war is likely to take three principal forms. First, capital depletion will be large and widespread simply because existing capital resources will have been undermaintained during the war. Maintenance, repair, and replacement are an inexorable requirement for the continued usefulness of most real capital resources. In a modern war much of this is likely to go unattended.

Second, there is that special form of undermaintenance that consists in the consumption of real working capital resources through the using up of inventories and stocks. As we have noted in the previous chapter, inventories and stocks under non-war conditions are an important component of the total capital stock. Many of these tend to be consumed and not replaced in a war economy.

Third, capital depletion, at least in certain areas, will take the form of outright physical destruction and damage through bombing and shellfire. Closely analogous is dismantlement and physical removal by theft to enemy territory. We shall combine capital depletion from dismantlement and theft along with that from bombing and shellfire under the heading of capital depletion from enemy action.

In large measure, the amount and kind of capital depletion in any country will fix the framework within which the steps towards rehabilitation and economic reconstruction must move after the war. Impaired capital resources means restricted production and diminished welfare. Consequently before turning to economic reconstruction let us first examine one of its main conditioning factors—wartime capital depletion.

II. THE UNDERMAINTENANCE OF DURABLE REAL CAPITAL

DEPLETION of real capital resources through undermaintenance has doubtless occurred on a large scale during the present war. It is common knowledge nowadays that one means of mobilizing resources for total war is to "consume" capital equipment by not providing its normal complement of repairs and maintenance. Where a country is extremely hard pressed, only those facilities which contribute to the war effort in a fairly direct way are likely

to be maintained in good working order. Even here, however, skimping, as for instance in railroads, is likely to occur. But in the main either deliberate policy or the harsh exigencies of the situation in the form of manpower and material shortages are likely to restrict wartime capital maintenance to war production facilities and ancillary industries. The remainder is likely to be undermaintained, though of course with marked differences of degree among the belligerents.

1. *The Causal Factors at Work*

The extent of undermaintenance of real capital in any country at the end of the war is likely to be the resultant of three principal factors. First, and doubtless most important, will be how hard pressed the country was by the requirements of war and over how long a time. The United States, for example, would be better off on both counts here than, say, Germany, Great Britain, or Russia. A second factor will be how much real capital the country had before it got into the war. A country with little real capital needs to spend very little on maintaining it at any time; and, therefore, the war may not have occasioned much undermaintenance. Poor agricultural countries may not suffer much undermaintenance of their sparse real capital simply because there is so little of it and so little is required to maintain it. Third, and lastly, the degree of undermaintenance will be affected by the particular composition of real capital. Of two countries having the same real capital per head and subject to the same war "pressure" the undermaintenance will be the greater in the one having the larger fraction of its total capital resources in a form requiring high annual outlays for repairs and maintenance. Agricultural capital, for example, doubtless requires much less annual attention than specialized industrial plant and equipment.

While one can thus distinguish the probable determinants of the degree of undermaintenance of real capital in general terms, there is no way in which to measure the inherited undermaintenance of real capital in specific countries or areas by *a priori* reasoning. Only an actual survey on the ground will be of much use here.

Because detailed specific information on capital depletion through undermaintenance in particular countries is now unascer-

tainable we are forced to resort to inferential analysis. Let us therefore consider some of the pertinent facts concerning capital depletion and capital maintenance in the American economy in the prewar period. We will then have some plane of reference from which to draw rough guesses concerning the form and significance of undermaintenance resulting from the war in other countries.

2. Capital Maintenance in Relation to National Income

One way to gauge undermaintenance of real capital is to note the size and form of capital maintenance under non-war conditions.

The size and importance of capital maintenance can be measured by comparing it with gross national product. Dr. Simon S. Kuznets has prepared some estimates which indicate that for the United States about 10-11 per cent of the gross national product is required for the replacement of capital consumed in the production of the national income. For fairly long periods where year-to-year oscillations do not distort the net result the constancy of this percentage is remarkable, perhaps even a little suspicious. Table VIII shows the figures relating replacement to gross national product and to national income for the United States for seven different periods.

TABLE VIII
GROSS AND NET CAPITAL FORMATION, U.S.A.
(In Billions: 1929 Prices ¹)

Period (1)	Gross Nat'l Product (2)	Nat'l Income (3)	Gross Cap. For- mation (4)	Net Cap. For- mation (5)	Cap. for Replace- ment 4 minus 5 (6)	Replace- ment Per Cent of Gross Nat'l Prod. (7)	Replace- ment as Per Cent of Nat'l Income (8)
1879-1888.....	17.3	15.2	3.9	1.8	2.1	12	13
1899-1908.....	36.5	32.4	8.2	4.1	4.1	11	12
1904-1913.....	43.7	38.7	9.8	4.8	5.0	11	12
1914-1923.....	60.8	53.8	13.2	6.3	6.9	10	12
1919-1928.....	76.7	68.6	15.0	6.9	8.1	10	11
1924-1933.....	82.3	73.3	13.2	4.2	9.0	10	12
1929-1938.....	80.3	71.1	10.8	1.6	9.2	11	12

The division of gross capital formation in various decades between producers' durable goods, construction, net changes in in-

¹ As reported in *The Review of Economic Statistics*, May, 1943, p. 165. Percentages calculated by the writer.

ventories, and net changes in claims against foreign countries is interesting in the present context and also in relation to the argument of the previous chapter. Table IX shows these percentages for the same decades used in Table VIII. The persistently high fraction for construction despite its downward trend over the years is especially noteworthy.

TABLE IX
COMPONENTS OF GROSS CAPITAL FORMATION, U.S.A.
(In Percentages: 1929 Prices ²)

<i>Period</i>	<i>Gross Capital Formation (Millions of Dollars)</i>	<i>Producers' Durable (Gross)</i>	<i>All Construc- tion (Gross)</i>	<i>Net Flow to Inven- tories</i>	<i>Net Changes in Claims Against Foreign Countries</i>
1879-1888.....	3,897	19.3	68.7	+13.7	-1.7
1899-1908.....	8,207	22.7	71.3	+7.2	-1.2
1904-1913.....	9,785	22.8	70.3	+7.8	-0.9
1914-1923....	13,219	28.6	45.4	+13.0	+12.9
1919-1928....	15,011	31.7	55.1	+8.0	+5.1
1924-1933....	13,199	34.8	64.6	-2.3	+2.9
1929-1938....	10,827	41.5	56.9	-0.6	+2.2

How far these estimated ratios for the United States are typical for other countries is difficult to say. For countries with an essentially similar industrial pattern and at about the same stage of development one would scarcely expect wide deviations in the proportion of gross national product necessary to maintain real capital. The marked stability in the percentages for the United States (as calculated from Kuznets' figures) over long intervals having quite varying economic characteristics strengthens this presumption. Hence the proportion of gross national product ordinarily required for capital maintenance in the United States, say, 10 per cent, may be roughly similar to that required in Germany, France, Great Britain, Belgium, Sweden, and perhaps the Netherlands.³

² From Kuznets, S., "Uses of National Income in Peace and War," National Bureau of Economic Research, *Occasional Paper No. 6*, New York, 1942, p. 33.

³ "The wear and tear of industrial plant and equipment in the United Kingdom in 1934 seems to have been about 5 per cent of the value of industrial goods produced, but considerable sums have, of course, to be set aside for obsolescence in addition to what is provided to cover physical wear and tear, so that the total replacement of plant, over a long period, would bear a considerably higher ratio to the value of output than this." Brown, A. J., *Industrialization and World Trade*, London, Royal Institute of International Affairs, 1943, p. 38.

As between industrialized countries and non-industrialized countries it seems difficult to formulate any strong presumptions in favor of either a larger or smaller ratio. It would be surprising, however, if the ratio were larger for agricultural countries.⁴

Even if one were to know, however, that, say, 10 per cent of gross national product were required in most countries for capital maintenance one could not thereby estimate the wartime accumulated undermaintenance of real capital. At least two other difficulties remain. In the first place one would have no way of knowing to what degree the required 10 per cent maintenance would in fact have been performed during the war. Certainly one-third would be almost an absolute minimum even for a hard-pressed warring nation; and one-half to two-thirds would be a more reasonable guess. On this basis accumulated undermaintenance in five years of war might amount to about 15-25 per cent of average gross national product.⁵ But there is a second difficulty. Much capital maintenance is of a sort to which the old adage "a stitch in time saves nine" is applicable. Consequently the longer undermaintenance is allowed to run the greater the investment necessary to return capital equipment to good working order. But there appears to be no way of allowing for this fact in any quantitative manner. We can only be sure that insofar as it applies it will increase total undermaintenance rather than diminish it.

Let us now turn from the question of the *size* of capital maintenance.

⁴ "Less industrialization" means less industry (as opposed to agriculture, forestry, fishing, etc.) by definition. And since industrial capital bears higher depreciation rates than agricultural, consumers', and government capital this would imply that capital maintenance would be a smaller ratio of national product in non-industrialized countries. But against this we have the fact that railroads and public utilities take heavy annual maintenance charges and these may bulk large in total real capital in non-industrial countries. I know of no means by which one can guess the net result of these opposing factors.

⁵ With the qualification of course that undermaintenance would not apply to what had been physically destroyed. It is possible to estimate the ratio of domestic disinvestment to net national income (at factor cost) for Great Britain and Germany for the years 1940-1942 from certain computations recently published by H. W. Singer ("The Sources of War Finance in the German War Economy," *The Review of Economic Studies*, Summer, 1943, pp. 106-114, at p. 113). According to the figures there given, for Germany, the percentages were 1940-6.6 per cent; 1941-7.8 per cent; 1942-7.3 per cent. For Great Britain the corresponding percentages were 5.0, 7.4, and 8.5. There is doubtless some margin of error here but it is unlikely to be so great as to render the figures useless.

nance in relation to gross national product to the matter of the *components* of normal capital depletion. Let us consider, in other words, what forms capital depletion assumes.

3. *The Components of Capital Maintenance*

According to Solomon Fabricant capital consumption in the years 1929 and 1932 in the United States was divided between Business Capital, Government Capital and Consumers' Capital in the amounts shown in Table X.⁶

TABLE X
CAPITAL CONSUMPTION IN MILLIONS OF DOLLARS ⁷

	1929	1932
Business Capital		
Depreciation.....	6,164	4,675
Depletion.....	595	281
Depreciation and Depletion.....	6,759	4,956
Repairs and Maintenance (Public Utilities).....	2,413	1,210
Developt. Costs Charged to Current Expenses (Mining)	321	107
Provision for Fire and Marine Losses.....	223	168
Total.....	9,716	6,441
Government Capital		
Depreciation.....	602	548
Repairs and Maintenance (Highways and Sewers)....	597	595
Total.....	1,199	1,143
Consumers' Capital		
Depreciation (Residences).....	2,484	1,826
Depreciation (Automobiles).....	2,625	1,761
Total.....	5,109	3,587
GRAND TOTAL.....	16,025	11,171

From Table X it would appear that in the United States business capital accounted for about 60 per cent of total capital consumption for the years indicated. In 1929, but not in 1932, repairs and maintenance on public utilities were about equal to depreciation on residences. And inspection of the estimates for other years (not

⁶ *Capital Consumption and Adjustment*, p. 171. He presents figures for the years 1919-1935 in the table cited.

⁷ From Fabricant, *op. cit.*, p. 171.

included in our table) shows a close correspondence between these two except in the depression years. Repairs and maintenance expenditures by public utilities declined after 1930 relative to estimated depreciation on dwellings.

If the American ratios are approximately typical of highly developed industrial economies, then one would infer that, insofar as undermaintenance of real capital will be a result of the war, perhaps some 50-60 per cent of this undermaintenance will be in business or industrial capital.⁸ The rest will be undermaintenance of government assets and consumers' capital.⁹

To recapitulate: Depreciation of industrial capital and repairs and maintenance to public utilities seem to be about three-fifths of total capital consumption; and if we add depreciation on residences we account for about three-quarters, or 75 per cent, of the whole. Repairs and maintenance to public utilities and depreciation on residences, indeed, seem to be about equal in size.

American data are available showing the estimated rates of depreciation applied to different types of industrial capital and to the several forms of government and consumers' capital. As would be expected, these are not identical for all industries. Given these rates and the proportions of total real capital in the respective industries one could, perhaps, arrive at some exceedingly rough measures of accumulated undermaintenance of real capital as a result of the war and where it could be expected to be relatively large. But the speculative nature of the whole technique scarcely makes it worth the candle. Let us therefore be content with a few simple facts concerning depreciation and depletion more as rough benchmarks than anything else.

For manufacturing as a whole in the United States the ratio of depreciation and depletion to net capital assets seems to run about 7 per cent. The dispersion about this (weighted) average is not

⁸ It might well be higher than this percentage for other countries because the American figures include such a large chunk for depreciation of automobiles.

⁹ The undermaintenance of industrial capital is of course far more significant for the problems of reconstruction and rehabilitation than the undermaintenance of government capital and consumers' capital. The undermaintenance of dwellings, for example, is less restrictive for the revival of national output than the poor condition of the steel mills or the railroads. A leaky roof is annoying and uncomfortable. But the rusting away of the saw-mill equipment which makes the shingles is more serious for all concerned.

marked, though in the individual industries the variations from one year to the next are considerable. In 1929, the range in manufacturing was from 9.6 per cent in chemicals to 5.2 per cent in paper. In 1934, it was from 9.2 per cent in chemicals to 5.4 in lumber, stone, clay, and glass products. The ratio is high in construction (8.6 per cent in 1934) and low in railroads and public utilities (1.9 per cent in 1934) where repairs and maintenance bulk large instead.¹⁰

4. Summary

There will be marked differences between the warring nations after the war in the degree to which real capital depletion will take the form of undermaintenance. Under non-war conditions capital maintenance may take as much as 10 per cent of gross national product in industrial countries and perhaps somewhat less in non-industrial countries. Perhaps at least one-half of this amount, i.e., 5 per cent of gross national product, would have to be spent on maintenance even in a strict war economy. But the situation is likely to be spotty as between one type of real capital and another and of course highly variable between countries. Some industrial capital directly engaged in war production will probably have been well maintained. But other industrial capital facilities will have been badly neglected because of shortages of materials and supplies. In the industrial sector perhaps railroads and public utilities are the most likely to be undermaintained by peacetime standards.¹¹

The American data suggest that about 60 per cent of all capital consumption occurs in "business" (i.e., industrial) capital with the remainder in government and consumers' capital. Perhaps in all countries consumers' and government capital are likely to have been neglected more than industrial capital, for obvious reasons.

¹⁰ See Fabricant, *op. cit.*, p. 34. Repair and maintenance expenditures for public utilities and government capital (highways and sewers) seem to have been about \$3 billion in U.S.A. in 1929. *Ibid.*, pp. 170-171. It is important to bear in mind also that these are not included by Kuznets in gross capital formation. He has stated that "the total maintenance and repair bill, as distinct from depreciation and depletion charges, might amount in prosperous years to between 5 and 7 per cent of the national income." *Occasional Paper No. 6*, p. 18 n.

¹¹ In a special report on the European transport situation prepared for the Brussels Financial Conference in 1920 figures were presented showing the

If one assumes that, at the worst, industrial capital has been on the average 60 per cent maintained and that government and consumers' capital have been only one-third maintained then under-maintenance would be accumulating at the rate of about 5 per cent of gross national product. On this basis a five-year war would mean a large accumulated deficit.

III. CAPITAL DEPLETION THROUGH ENEMY ACTION

THE extent of the damage wrought by bombing and military operations generally cannot be known until the end of the war.¹² Yet notwithstanding this fact we can get some inkling of its probable character from facts already available. Capital depletion through enemy action will take two forms: first, the systematic dismantlement and theft of certain types of real capital; second, the physical destruction of real capital through the actual waging of the war. Let us consider these in turn.

percentage of railroad rolling stock fit for service. The percentages ran as follows:

	Locomotives	Wagons
Austria	63	67
Baltic Countries	"situation chaotic."	
Bulgaria	37	56
Czechoslovakia	62	88
Greece	76	86
Hungary	27	76
Poland	70	90
Roumania	29	57
Russia	15	20
Yugoslavia	"heavy repairs awaiting re-opening of repair shops."	

As reported in League of Nations, *Europe's Overseas Needs, 1919-1920, and How They Were Met*, Geneva, 1943, p. 8. In the two years 1919-20, the United States exported to Europe 1,039 steam locomotives and 34,717 freight cars as against 3 locomotives and no cars in 1913. *Ibid.*, p. 16.

¹² It might be more logical to consider the consumption of real working capital assets before touching upon depletion through enemy action. But because military operations are most likely to affect durable assets it seems preferable to use the present sequence.

1. Theft and Exploitation

The age-old practice of plundering occupied territory has been reduced by the Nazis to a science with carefully trained practitioners. The removal of capital goods to enemy territory was not unknown in World War I.¹⁸ The objectives of German exploitation of occupied territory in the present war, however, have been more carefully conceived and more ruthlessly pursued than in 1914-18. Occupied territories have been carefully analyzed for the contribution they might make to the German war potential. And, at least in the earlier part of the war, there was the further objective of eliminating certain industries from occupied territory altogether. The plan was broad in scope and envisioned the reorganization of European industry and commerce to the greater power and glory of the Reich. Hence in the present war the dismantlement of capital equipment and its removal to Germany was not guided simply by the immediate gains in Germany's war potential. Yet as the war has continued Germany has probably been able to devote fewer and fewer resources to these longer-run objectives; her acute manpower shortage and her later military reverses must have reduced them to a minor place.

No reliable estimates of the magnitude of the diminution of real capital resources from plunder and theft probably exist. Yet its general character can almost be inferred from facts of common knowledge.

In the first place, inventories of raw materials and finished goods, live stock, trucks and automobiles, light machinery, railroad rolling stock, chattels, art treasures, and the like are the types of real

¹⁸ We read, for example, that "Machinery and installations were requisitioned on a large scale for utilization by German industries, and from 1917 whole industrial plants were either transferred or scrapped. In Belgium, 106 plants were registered for this procedure in the second half of 1917 alone, and that number was increased considerably in 1918. In Poland, the equipment of certain branches of the cotton industry was taken away and transferred to Germany. In many instances plants in the occupied territories were reduced to bare skeletons." Grebler, Leo, and Winkler, Wilhelm, *The Cost of the World War to Germany and to Austria-Hungary*, New Haven, Conn., 1940, p. 75. There has been a flood of literature on the topic since the present war. Most of the references will be found in Munk, Frank, *The Legacy of Nazism*, New York, 1943.

capital resources that lend themselves most easily to removal and theft. A railroad embankment cannot be stolen by even the most scientific thievery. Similarly highways, buildings, and structures generally cost more to dismantle than the proceeds are worth. Consequently the diminution in real capital resources in occupied territory through physical removal to Germany will probably be confined to easily removable items having considerable value in relation to their bulk. While these losses are serious enough, they do not constitute a large share of total capital resources and their replacement is less difficult than the heavy types of capital equipment.

Secondly, it must be borne in mind that European industry outside of Germany has been geared into the German war machine and that to this extent the Germans have had a direct incentive to keep some plant and equipment in good working order and supplied with materials. It is unlikely that as Europe is occupied by conquering armies that the retreating German armies will have had time systematically to remove machines and raw materials from these plants. There may be time enough to demolish them of course. Yet the greatest thefts are likely to be from plants in those industries which could not be converted to German war needs and which have therefore stood idle since the occupation. These have apparently been stripped of parts and scarce metals wherever possible. Certain branches of the textile trades and consumers' goods of the luxury type are probably cases in point.

No trustworthy estimates of the importance of dismantlement and theft as a causal factor in real capital diminution can be compiled until the war terminates. Certainly it is likely to vary widely from country to country and from region to region. Perhaps in the aggregate it will be more important than physical destruction from military operations. Yet without more accurate information than is currently available even an informed guess is quite impossible.

2. Physical Destruction in World War I

The ultimate damage and destruction to real capital in the present war from military operations will doubtless exceed that of

World War I. Yet it is useful to note some few figures alleged to describe the physical destruction in 1914-1918.

Mr. Bernard M. Baruch, in reference to France, said that had it been American territory, "there would have been devastated practically all of our manufacturing country north of Washington and east of Pittsburgh." But this is probably an exaggeration.¹⁴

Belgium in 1921 included in its "recoverable budget," i.e., what it hoped to receive from Germany in reparations, about 2.75 billion paper francs. In 1922 the comparable figure was roughly 2.75 billions.¹⁵ Some of the more interesting components of the 1921 recoverable budget were, in round figures, as follows:¹⁶

	<i>Millions of Paper Belgian Francs</i>
Annuity to Reimburse Communes for War Losses...	26.2
Agricultural Reconstruction.....	130.8
Roads.....	50.0
Forts and Coast.....	50.0
Railroads, Marine, Ports, and Telegraphs.....	568.0
War Damages.....	618.0
Office of Devastated Regions (Reconstruction and Miscellaneous).....	620.0

The high proportion of the total recoverable budget, about 23 per cent, occasioned by repairs to roads, ports, and public utilities is worth noting. If "war damages" only includes property damage, and not such items as lost income to the citizens, then the restoration of real capital assets for Belgium amounted to almost one-half of the total costs of reconstruction included in the recoverable budget in 1921. And the bulk of this seemed to be in the capital intensive industries.

The French claims for property damage as turned into the

¹⁴ As reported in World Peace Foundation, Vol. V, No. 1, Reparation, Part I, "Damage and Payments," Boston, Mass., 1922, pp. 23-24.

There seem to be no reliable overall figures for the property damage resulting from World War I, although I have not made an exhaustive search. All the estimates seem to get smaller as time passes. But since most of the computations seem to have been made as basis for filing claims one would scarcely expect a tendency to underestimate.

¹⁵ *Ibid.*, p. 28.

¹⁶ *Ibid.*

Reparation Commission seem to have been about 130.5 billions of French paper francs, mainly constituted as follows:¹⁷

	<i>Millions of Paper Francs</i>
Industrial Property.....	38,882
Buildings Property.....	36,892
Personal Property.....	25,119
Unimproved Property.....	21,671

The rough equivalence between damage to buildings and damage to industrial property is interesting. Personal property damage seems to have been about two-thirds of the damage to buildings. Total industrial property damage, assuming the figures to be reliable in their relation to one another if somewhat less trustworthy in their absolute amounts, appears to have been about 60 per cent of the damage to buildings and personal property combined.

The point that stands out from these fragmentary data is of course the very high proportion of the damage that consisted of damage to buildings, personal property and heavy fixed capital investments such as railroads, telegraphs, and, presumably, other public utilities.

An alternative approach in trying to guess the probable damage resulting from bombing, artillery and the accompanying fires is to assume that the results would be not unlike those caused by a serious earthquake. Measured by their effect upon real property in the damaged area, major earthquakes and modern bombing and concentrated shellfire are quantitatively perhaps much alike.

The authorities on earthquakes seem to be agreed that the public's conception of the damage caused by even serious quakes is grossly exaggerated. For obvious reasons the most dramatic forms of the havoc claim attention while the undamaged, or only slightly affected, areas are apt to be forgotten. John R. Freeman ventures the opinion after an apparently careful examination of the evidence that for earthquakes the ratio of property damage to total "sound value" of property in the quake area will not exceed 5 per cent.¹⁸ If serious fires break out, however, and they cannot be

¹⁷ World Peace Foundation, Vol. VI, No. 4, "Reparation, Part IV, Proposals for Settlement," Boston, Mass., 1923, p. 221.

¹⁸ Freeman, John R., *Earthquake Damage and Earthquake Insurance*, New York, 1932, p. 622. He adds, p. 624, that the 5 per cent ratio allows a consider-

brought under control, e.g., San Francisco, 1906, then the *total* loss from fire and earthquake alike in the *burned area* may run close to 100 per cent. At least Freeman writes "that within the burned area in San Francisco the direct earthquake damage as a whole did not exceed 5 per cent of the total damage in the burned area."¹⁹ The badly burned area of course tends to be something considerably smaller than that heavily bombed or shelled.

Estimates such as these are far from satisfactory to be sure. Yet they may roughly indicate the nature and amount of the damage to be anticipated in urban areas from bombing and shellfire.

3. *Unreliability of Early Estimates*

The paragraphs immediately preceding fall far short of answering the question of how much capital destruction is to be expected from direct military activity during the present war.²⁰ No accurate calculation will be possible until the war is over. Yet two points of importance are worth noting.

First, there is a strong likelihood that, as with the earthquakes, the extent and degree of *total* damage will be seriously overestimated by excessive preoccupation with those regions where the destruction has been very heavy. The plain physical fact probably is that it is almost impossible, even with the techniques of modern warfare, to destroy physically more than a small fraction of the total real capital resources of a nation.²¹

able safety factor to the insurance company. This study is not confined to American experience. In dollar terms the estimated loss from the San Francisco earthquake and fire was estimated at \$300,000,000. But the total assessed value of improvements and personal property in 1905-06 was only slightly more than two-thirds of this figure. *Ibid.*, p. 317. The Japanese earthquake is said to have entailed total damage of 2.75 billions of U. S. dollars (p. 458).

¹⁹ *Ibid.*, p. 623.

²⁰ For what the information may be worth it is reported that in World War II in Great Britain the amount paid out by the War Damage Commission up to about the end of 1942, i.e., after the first period of heavy air bombings, was £86,500,000. See *Post Magazine*, December 26, 1942, p. 872.

²¹ The following from Hauser, Ernest O., "Resurrection of a City," *Saturday Evening Post*, October 21, 1944, p. 27, concerning Cherbourg is interesting.

"... they found that destruction had been less extensive than it could have been. The port had been demolished, to be sure, and the arsenal, on which the majority of Cherbourg's working population depended for its livelihood, was a pile of rubble. The wooded hill under Fort du Roule, where the Germans had held out to the last, had been denuded of all its trees by the heavy

Secondly, where destruction by warfare and military occupation has occurred the greatest proportion of the total will consist of damage to buildings and personal property. This is not surprising really. For, as we endeavored to point out in an earlier chapter, a large fraction of a nation's total real capital resources consists in these very items.

To venture even a rough guess as to the total destruction occasioned by direct military operations is to wander into uncertainties with almost no guideposts. The total figure in money terms will doubtless be astoundingly large. In percentage terms the destruction from explosives and resulting fires might range from perhaps 1 per cent in lightly bombed areas to possibly as high as 20-30 per cent or higher (e.g., Cassino) in heavily attacked or defended cities and towns. Since the bulk of the damage will be confined to urban areas where structures are nearly contiguous the physical destruction as a proportion of total real capital assets for any one country as a whole is difficult even to guess at. Yet, in the writer's judgment, it would be surprising if in most instances the net damage in a country as a whole exceeded 5-7 per cent of the total.²²

4. *The Integral Character of Real Capital Resources*

Any such figure as 5-7 per cent (which may well be too low) is likely to be misleading, however, if one assumes that the significance of the total diminution in the real capital resources available is measured thereby. The fact is that the real capital goods in any region have a structural relationship in their component parts. What has been destroyed does not leave the productivity or usefulness of what remains wholly unaffected. If the port facilities of Hamburg have been reduced to rubble the usefulness of undam-

shellfire and looked as naked as a singed chicken. Bombs had torn gashes in walls and holes in streets; tangled wires were hanging from the housetops. Many roofs had been torn down, and some houses had caved in altogether. Yet, most of the shops and dwellings still stood. Cherbourg was still a city; it was not beyond repair."

²² Where time and resources allowed a thorough application of the "scorched earth" policy the percentages suggested above may well be much too low. In rural areas where most of the buildings are of wooden construction complete destruction by deliberate fire is comparatively simple. The reports from Russia seem to indicate that some such plan was there followed by the German armies.

aged factories and equipment in middle Germany will almost certainly be impaired. Similarly if Berlin no longer "exists" in a meaningful economic sense then the productive capacity of German industry as a whole is adversely affected. In other words, what remains physically undamaged from military operations almost inevitably has its productivity reduced, perhaps seriously reduced, by the fact that military operations have destroyed capital equipment elsewhere. The real capital resources of a region or a nation are closely interrelated: they are not separable like grains of wheat. Indeed the strategy of bombing raids appears to be based largely on this principle: destroy "vital" production facilities so that the usefulness of the remainder is sharply curtailed.

The consequence is that, even if the physical destruction from military operations could be accurately known as a percentage of total real capital resources, one would have to allow also for the diminished productivity of the capital resources left physically intact. For problems of postwar productivity and national income, and hence savings and investment, these indirect consequences are doubtless the most important economic result of the capital destruction from military activity. The percentage of total capital facilities rendered useless may not be large; yet the diminution of national productivity may be serious because of the previous organic relationship between the capital equipment which remains and that which has been destroyed.²³

²³ The principle of dispersion of military goods production facilities seems to be based upon this very consideration. In both Great Britain and Germany the location of industrial production facilities since the war has been much influenced by the necessity of maintaining production at high levels even if heavy air bombing should occur. But of course, even in a war, a country cannot completely relocate its industrial plant and equipment: much, perhaps most, of it will be in a closely knit geographical pattern reflecting normal economic considerations.

In this connection the following is interesting:

"In reference to the recuperative powers of the German aircraft industry, which necessitates continually increasing Allied attack to bring about its destruction, the statement explained that the Nazi industry is organized 'in a system of complexes, each composed of a final assembly plant and of component parts factories which feed their products into that plant for assembly into completed planes.'

"Each complex is not only self-sustaining, but its personnel and equipment are interchangeable with other complexes. If one complex is bombed out surviving workers are switched to another plant; equipment is juggled and plants

IV. THE DEPLETION OF REAL WORKING
CAPITAL

THE disappearance of real working capital resources—essentially raw materials—will probably be the most serious immediate obstacle to a revival of output when the fighting ceases. Physical destruction, theft, and undermaintenance of course will damage productive capacity. But the shortages of raw materials and supplies are likely to be so great that much of the plant and equipment that is usable will remain idle.

For Europe, which is normally dependent upon the rest of the world for many raw materials (cotton, wool, rubber, hemp, etc.) and some foodstuffs and feedstuffs, the virtual severance of its imports must ultimately mean the reduction of stocks of imported raw materials to a tiny fraction of that required for effective peacetime production. As for domestically produced raw materials and supplies the situation, though likely to be better, will be far from satisfactory. Here of course much depends upon what happens after collapse or unconditional surrender. If transportation breaks down or hoarding occurs on a large scale, the aggregate supply picture may be little better for domestic products than for imported goods.²⁴ Finally, it was frequently asserted that Germany would collapse, if at all, because of insufficient supplies and materials. If so, the real working capital resources of the Continent will have been exhausted before the war ends. Hence the armistice may reveal real working capital resources acutely deficient.

It is common knowledge that after World War I the shortages of raw materials and foods were a major barrier to the revival of industrial production. The shortages of real working capital resources surely will be even more acute after the present war. The food problem, though serious, may not be perilous in view of the rise of food production on the continent of Europe.²⁵ But raw are either rebuilt or set up in new locations." (New York Times, March 29, 1944, p. 11.)

²⁴ For example, after World War I, railroad traffic was hampered not only by worn-out rolling stock but by coal shortages as well.

²⁵ Cf. Bennett, M. K., "Food for Post-War Europe: How Much and What," Food Research Institute War-Peace Pamphlets No. 5, Stanford University,

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material shortages are likely to be even more serious than after World War I and they will hamper industrial production in the same manner. For all accounts of the occupation of Europe by the German armies emphasize the speed and thoroughness with which stocks of materials were seized and removed to Germany. Moreover, in contrast to the last war, the occupied territory has been almost the *whole* of Europe; the Netherlands, Denmark, and Norway will not again be areas from which supplies of materials can be drawn for reconstruction. Finally, the magnitude of the present war measured by its consumption of supplies and materials far exceeds that of World War I. The only countervailing factor of any consequence has been the development of substitute materials. But even substitutes have to be made from something.

In conclusion, we perhaps do well to note the summary comments upon real working capital resources after World War I written by the League of Nations secretariat: ²⁶

Smooth production requires considerable stocks of raw materials and semi-manufactured goods at successive points in the chain of production to absorb irregularities in supply or consumption. Such stocks were more, rather than less, necessary in the immediate post-war years when supply and transport were often interrupted by lack of coal, lack of trucks, labour disputes, etc. But stocks had, in fact, been exhausted during the war when overseas supplies were cut off by blockade and by lack of shipping. . . .

California, 1944, *passim*. "... the prospective food-and-feed imports of Continental Europe from all sources may run as high as 15-18 million metric tons in the first postwar year, as compared with about 20 million tons in prewar years. An enormous increase from the current low wartime level of around 2 million tons seems reasonably in prospect. So large an increase is conceivable partly as the natural aftermath of the conclusion of war and the removal of blockade, partly as the result of relief activities, especially of occupying armies, American lend-lease, and UNRRA. The imports of grain for food, notably of wheat, seem likely to exceed prewar imports, and so may imports of dried legumes and possibly sugar. Animal products of which the Continent was a net exporter before the war, may be imported net though on a very small scale. Imports of rice, oilseeds, oil cake, edible oils, coffee, tea, cacao beans, fruits, and feed grains seem likely to fall well below prewar imports. Food seems likely to constitute a larger proportion of the imports, feed a smaller proportion, than was true in prewar years." *Ibid.*, p. 92.

In 1919, imports of foodstuffs into Europe were about 10 per cent higher than in 1913 though the need was not fulfilled. See League of Nations, *Europe's Overseas Needs, 1919-1920, and How They Were Met*, Geneva, 1943, p. 16.

²⁶ *Ibid.*, p. 7.

Hence until deficiencies of real working capital have been made good production and standards of living are likely to drag along at low levels.

V. SUMMARY AND CONCLUSIONS ON WAR AND CAPITAL DEPLETION

THE present chapter has endeavored to describe the three forms of real capital depletion that the war is likely to impose: under-maintenance of durable assets, damage and destruction from enemy action, and consumption of real working capital. The relative importance of these three will undoubtedly vary widely from country to country. Yet it is not useless to try to guess a kind of upper limit for each. We suggested, for example, that undermaintenance as a whole would be unlikely to be greater than one-half, or, alternatively expressed, probably is not accumulating more rapidly than at a rate of 5 per cent of gross annual product.²⁷ Undermaintenance has probably been less in industrial capital than in government and consumers' capital. But in the industrial sector railroads and public utilities have perhaps been less well maintained than other types. Hence if real capital has been only half maintained, on the average, the undermaintenance will not be evenly spread over the different types.

Capital depletion from enemy action will be highly uneven between countries. Dismantlement and theft have doubtless occurred in numerous sections but these will necessarily be confined to capital items that are capable of being removed. Bombing and shell-fire on the other hand will do their greatest damage to buildings and structures. Among these, dwellings and government assets (bridges, harbors, etc.) will constitute a large fraction of the total damage and destruction. But all told it is doubtful if the total damage is likely to exceed that caused by major earthquakes where 5 per cent seems to be a reasonable estimate. In some areas, e.g., Ruhr, Berlin, this 5 per cent may be too small an estimate.

²⁷ The rate of undermaintenance was undoubtedly less in the earlier war years. But in Germany, for example, it has probably been higher in the later years. One-half seems not too unreasonable for the whole war period as an outside limit.

Real working capital assets will be severely depleted when the war ends. But it is impossible to say by how much. Here there will be wide differences from country to country and as between one raw material and another.

No one can now know by how much capital depletion is likely to diminish output after the present war. But it will be more than trifling. And it must not be forgotten that what one must expect is not an equal percentage reduction in all types of real capital in all areas but rather a highly irregular diminution that will reduce the effectiveness in production of what is reasonably intact. This irregularity combined with the various disruptive factors that will prevent the easy operation of the economy in its specialized parts—transportation and communication difficulties, civil disorders, the severance of trade connections, demobilization, etc.—cannot be expected to have other than an adverse effect upon output. The net effect of capital depletion and related difficulties upon industrial production after the last war is shown by the following table prepared by the League of Nations.²⁸

TABLE XI
INDICES OF INDUSTRIAL PRODUCTION AND MINING
IN CERTAIN EUROPEAN COUNTRIES

(1928 = 100)

	1919	1920	1921	1923	1925
France.....	45	49	43	69	84
Italy.....	58	59	61	72	92
Belgium.....	—	54	47	70	75
Germany.....	37	54	65	46	81
Czechoslovakia.....	58	53	69	71	78
Austria.....	34	41	54	69	84
Total Continental Europe...	47	56	59	63	83

It is not alleged, of course, that the low levels of industrial production in 1919 and 1920 are ascribable entirely to real capital depletion. But it seems undeniable that it played a dominant part.

The discussion in the present chapter has run in terms of capital depletion, its causes and forms. We have said nothing of the capital accretions in the form of new plant and equipment that have un-

²⁸ *Ibid.*, p. 8.

doubtedly occurred abroad as they have in the United States. Insofar as these are convertible to peacetime uses they will serve to offset capital depletion in other directions. But, at least in the United States, the possibilities of converting war-plant facilities to peacetime production seem to grow less optimistic as time passes. A similar situation may prevail abroad.

Like all wars the present struggle has occasioned technical advances on a wide front.²⁹ From one point of view these may be much more important in an appraisal of the difficulties of economic reconstruction than the depletion of capital inheritance. But they are now largely an unknown factor applied to a peacetime economy. We can only be sure that they will make the tasks somewhat easier. They must not be overlooked. But they are now impossible to assess.

²⁹ At least this is the usually expressed view. It has been pointed out, however, that war tends to concentrate scientific and technical ability along highly specific lines while research in other directions stands still so that there is an accumulated lag when the war ends. This last may be more important than is commonly supposed. The net effect of the war upon technical knowledge having a peacetime usefulness may be a highly mixed affair.

4. SOME ECONOMIC ASPECTS OF REHABILITATION AND RECONSTRUCTION

I. INTRODUCTION

ECONOMIC rehabilitation is only incidentally a problem of money expenditure. It will not be a lack of domestic money funds which will handicap governments, business enterprises, and private citizens in restoring economic productivity. On the contrary, domestic money balances are likely to be so plentiful that inflation will be an acute danger. The significant deficiencies will be of quite another sort: deficiencies of food and raw materials, of factories in good working order, of machinery, and of various kinds of productive equipment.

Economic rehabilitation and reconstruction in any area will principally consist of making larger quantities of real capital available. The very words "rehabilitate" and "reconstruct" suggest physical destruction of housing and buildings generally. The whole process, from an economic point of view, is one of increasing the real capital stock; and its stages are distinguishable from one another by the character of the increments made. In the period of strict relief the most pressing needs are, of course, consumers' capital in the most readily consumable form: food, clothing, medicines, and the like. Simultaneously, however, seeds and fertilizers and lubricating oil and spare parts must be supplied so that the population can soon produce its own food. The judicious provision of real working capital of the proper kinds will enable what real fixed capital equipment is in working order to produce a flow of consumable goods. Initially the flow of production will not be large. But by repairs and replacements more and more capital equipment

is restored to useful service to swell the flow of real output. Consumption and standards of living gradually rise above the acute poverty level. And each rise makes the next advance somewhat easier, because productive capacity is greater at each succeeding step. Yet the process as a whole consists in augmenting the available quantities of fixed and working capital in real terms. The *kind* of real capital added changes; but, from an economic point of view, the process has the same general character. Rehabilitation and reconstruction consist in accretions to real capital.

The task of economic rehabilitation in any area will be defined, on the one hand, by the kind and quantity of real capital equipment in the territory before the war and, on the other, by the amount and kind of capital impairment and destruction consequent upon the war itself. The real capital resources of an agricultural country obviously differ in their composition from those of a highly industrialized nation. Similarly, highly industrialized countries will possess not only *more* real capital equipment, in the aggregate and per capita, but much of it (the "heavy" industries, for example) will be of a sort wholly non-existent in the other countries. Apart from these differences in the components of the real capital stock, the effects of the war are not likely to be equally serious for industrial and for non-industrial countries. The geographical dispersion of buildings and structures in agricultural regions contrasts sharply with the marked concentration so characteristic of industrial areas. With any given concentration of military activity in the two areas the damage and destruction in percentage terms is likely to be much heavier in industrialized regions. Modern warfare being of the character it is, there is both more reason to destroy industrial facilities and a greater likelihood that they can be demolished. Even "block-busters" are harmless in rural areas. Consequently not only will the magnitude of the job of economic reconstruction vary considerably from region to region but its essential requirements as well. Of course in a broad overall view the job remains that of augmenting the stock of real capital resources. But not precisely the same needs will have to be met in every case nor will the same means be employed in each instance.

It would be fallacious to assume, however, that all depletions of real capital resources must necessarily be made good before production can take on a semblance of its prewar pattern. Real as the

capital consumption has been, it does not necessarily mean that production is impossible. The primary consequences of under-maintenance of real capital during the war will appear in two directions. In the first place, operating efficiency will be diminished and, hence, operating costs will be higher; the machinery and equipment will not be so productive as it would have been had it been maintained. The production costs of final products will be higher than if the war had not occurred. In the second place, a larger fraction of the total capital instruments will be of an advanced age and their aggregate numbers will probably be smaller. Automobiles in the United States are a case in point. Prior to the war a certain number were annually retired and a (varying) similar number annually added as replacement. During the war years the total stock has diminished, their average age is greater, and (probably) their average operating costs are higher. And the longer the war lasts the more persistent these tendencies become. Hence the effect of undermaintenance of real capital resources will show its immediate postwar effects in a smaller stock of real capital available and in the diminished efficiency of its components which will be apparent in higher operating cost.¹

II. THE CONSEQUENCES OF CAPITAL DEPLETION

OUR analysis in the preceding chapter clearly does not provide a summary figure for total real capital depletion as a result of the war. This was not its purpose. Rather the intent was to draw attention to the more salient economic aspects of wartime capital depletion by reference to the four causal factors at work: physical destruction, dismantlement and theft, consumption of fixed capital through undermaintenance, and the shrinkage of real working capital resources.

¹ While the foregoing is a reasonable expectation with respect to real capital resources as a whole, certain types of capital equipment will be so badly under-maintained as to be practically worthless. In the main these latter will be the less durable types such as consumers' capital goods and industrial capital equipment normally subject to high rates of depreciation. Since we have already dealt in the previous chapter with differentials in depreciation rates between various kinds of capital goods we need not repeat the discussion here.

In a summary view we may conveniently consider net capital depletion resulting from the war as it pertains to working capital assets on the one hand and fixed capital resources on the other. Let us make it clear at the outset that there is no gainsaying the fact that the world would have been much better equipped to care for human needs had the war not occurred; its toll in real capital resources will be gigantic. Yet we need not jump from this fact to the conclusion that the outlook is hopeless and all is lost. At least such a contention seems unwarranted insofar as real capital depletion is the basis for despair. Real capital resources are only significant as a potential source of consumption goods and services for the material welfare of mankind. Hence we may appropriately consider wartime capital depletion in terms of its probable effects on future production.

From this point of view much the most serious aspect of capital depletion will be the virtual disappearance of real working capital assets from the economic system. Without raw materials to feed into the machines, without spare parts to repair the machinery, without lubricants to permit the wheels to turn again, and without coal or oil to generate power, production cannot revive and people with empty stomachs will shiver in the cold. And from the standpoint of getting production under way again *after* the war, it makes little difference *why* such working capital assets will have virtually disappeared. The relevant fact is that production cannot begin again until they have been replenished. Raw materials and supplies are a prerequisite to a revival of output. And adequate quantities thereof will have to be held as a permanent investment within the economic system as a condition of its continued efficient operation.

As to fixed capital assets there will be both immediate and longer-run consequences of their depletion through destruction and undermaintenance. Directly and immediately production costs will be high because much plant and equipment will be in a run-down condition and thus inefficient. The most pervasive in its consequences of these industrial inefficiencies is likely to be that of the transportation system. We are apt to forget at times how important the transportation system is in the framework of modern industrialism. Yet without railroads and their appurtenances our industrial system is inconceivable. These inefficiencies in transportation will seriously handicap other branches of industry. The inefficiencies

from undermaintenance in transportation, however, are only an outstanding example of a condition likely to be widespread in industry as a whole. Costs will be high and production sluggish.

The physical destruction of durable capital assets is likely to show its most serious consequences in the rent it leaves in the complexly interwoven fabric of the industrial economy. The whole cloth is weakened because the shellfire and bombs have torn holes at strategic points. Plant and equipment that are physically unharmed possess diminished productivity because other plants no longer exist. In some measure of course the more strategic facilities will have been replaced even during the war. But much will remain to be done before production approaches its former efficiency. Until the damaged sections are at least partially restored physical production as a whole will be seriously handicapped.

The longer-run consequences of the depletion of durable capital are not less important. Some time will necessarily elapse before the population in certain areas will be as comfortably housed as it was before the war. So much of the physical destruction will be that of dwellings and buildings. Yet the shrinkage in welfare for the people as a whole on this score is perhaps not greater than that occasioned by a serious depression when persons crowd into cheaper quarters and leave many dwellings idle.

Wartime capital depletion will also require a recomposition of the gross national product as between consumption goods output and the maintenance and repair of capital facilities. For the United States we saw that about 10 per cent of the gross national product is absorbed in capital maintenance. Perhaps a similar percentage was required in most industrial countries. But in many countries after the war this percentage will need to be larger. The capital goods as a whole will be older and closer to physical retirement because normal replacements and repairs have been postponed from year to year. Consequently for the economy as a whole proportionately more of the annual product will have to consist of capital maintenance unless the total real capital stock is to continue to decline. Consumption goods output will be a smaller fraction and capital goods a larger fraction of total output. While theoretically such a recomposition of total output would occur automatically in an enterprise economy, the natural tendency of production to shift in this direction may well need to be supple-

mented by positive public policy. But this last may not properly engage us at the present juncture. Here we only wish to emphasize that the undermaintenance of real capital during the war will alter the structure of production and the composition of the annual output for some years after hostilities cease.

Thus several causes are at work to determine the kind and extent of real capital depletion at the war's end. The consequences thereof are partially direct and immediate in their effect upon postwar production and partially indirect and more enduring. As a whole real capital depletion need not be an insuperable barrier to economic rehabilitation and reconstruction if it does not extend "too far." Yet on this very point one must candidly admit a grave danger.

Real capital depletion can be likened to the roll of a ship in heavy sea. Within limits a roll to starboard is not catastrophic because it tends to be self-correcting with always a tendency towards an even keel. Yet ships have been known to capsize. And so with capital depletion. If it does not extend too far it tends to be self-correcting in time with not too great permanent harm to the economic and industrial system. But should the impairment of real capital resources become very large, either through savage fighting over wide areas or because the war struggle lasts a very long time, then the economic system may, in the end, simply disintegrate. Capital depletion (and other factors simultaneously at work) will have become so widespread and so serious that the technical foundation of production no longer exists; the economic system virtually falls apart. Such an eventuality could occur. But the prospects at present writing are scarcely that black.²

² An Italian Socialist leader, Signor Nenni, in criticizing the conduct of reconstruction in Italy recently remarked, "If eight or ten more Italian cities get into the state of Naples, where three-quarters of the citizens live by beggary, prostitution, peddling, and black-marketing, Italy will cease to exist." *New York Times*, Section I, July 16, 1944, p. 16. See also the disturbing article by Raymond, Allen, "Bankrupt Italy is Capable of Anything," *Saturday Evening Post*, September 23, 1944.

III. THE SUBSTANCE OF ECONOMIC RECONSTRUCTION

ECONOMIC reconstruction after the war has two distinguishable, though closely interrelated, aspects. On the financial side we have the domestic and international policies that a country may invoke to carry through its reconstruction program. The other side is the "real" or "goods" side: what it is that requires doing in a more fundamental sense and for which the financial techniques are devised. It is the latter that we wish to consider in the present section. The financial problems can be postponed a little.

It is almost self-evident that as soon as the war ends the most pressing needs will be for food and clothing and preventive medicines. This will be the period of direct relief for which plans and facilities seem to have been already formulated. At the same time, however, yardage goods, seeds, fertilizers, spare machinery parts, perhaps some farm tools, and certain raw materials will also have to be provided so that the relief period can be terminated as quickly as possible. This view seems now to be generally accepted.³

These most immediate requirements may properly be regarded as constituting the interval of relief. It is the succeeding period of reconstruction, however, that calls for careful examination here.

1. *Restoration of Real Capital Depletion*

Whereas the objective of postwar relief is to halt starvation and misery the presumptive aim of economic reconstruction is to restore production and national income to its prewar level if not its prewar composition. The elevation of national output in conjunction with the virtual elimination of war goods production will require two things. On the one hand it will mean the endeavor to restore what

³ We read, "After a visit to most countries in receipt of relief in October, 1919, Sir William Goode, the British Director of Relief, observed that he was 'absolutely convinced that to continue to provide food (to Poland, Yugoslavia, Czechoslovakia, Austria, Hungary, and the Baltic countries) without at the same time providing raw materials on which to re-establish industry (was) merely to aggravate the problem of Europe.'" As quoted in *Europe's Overseas Needs, 1919-1920, and How They Were Met*, League of Nations, II Economic and Financial, 1943, II. A. 6, p. 21 n.

capital depletion has occurred as a consequence of the war; or, more accurately, since the whole of the depletion cannot be made good in the short period, partially to restore the depletion and partially to minimize its adverse effects. On the other hand, it will mean the conversion (and reconversion) of basically war industries and facilities to peacetime production. Both reconversion and capital restoration raise their own special problems though they clearly abut one another at numerous points.

The restoration of capital depleted in wartime means of course restoring real capital that has been destroyed, damaged, or under-maintained during the war itself. Here it is helpful to recall our earlier distinction between real capital used for productive purposes and real capital used primarily for consumption. The task of economic reconstruction is to re-establish national output at a level at least approaching that which prevailed before the war. Hence it is the productive capital of the nation, not its consumption capital, that will require immediate attention and the prior claim on scarce productive resources. It seems safe to assume that, at least in the beginning, there will be more things for productive facilities and labor to do than there will be facilities and labor to do them. Consequently the wise policy would be to give priority to the restoration of productive facilities rather than to housing, furniture, and the like. Some minimum standard of consumption and living is of course indispensable. But the tendency will be perhaps to go too far in the provision of these "necessities" rather than not far enough. And this drift will be all the more likely if the whole reconstruction program is left to the free play of the market as guided by the expenditure of money incomes. But more of this in due course.

We have repeatedly emphasized the very large proportion that buildings and structures bear to the total of productive capital in any country. We have also stressed the degree to which physical destruction as a result of military operations means the demolition of structures, harbor installations, railroad terminals, and the like. Hence in any area needing reconstruction the preponderant portion of that reconstruction will undoubtedly be a reconstruction of buildings and similar fixed capital resources. Similarly, much the greatest part of capital depletion arising from undermaintenance, as contrasted with physical destruction, will be the under-

maintenance of buildings and structures. The consequence is that in a very fundamental sense the restoration of capital depletion will necessarily be the restoration of specific productive facilities which by their very nature have to be restored "on the spot" so to speak, and for which no *direct* assistance can be had from abroad. If the Anhalter Bahnhof has been destroyed it can only be restored as a station in Berlin by German workers using largely German bricks, mortar, cement, and glass. Similarly, if the French railways have been badly undermaintained so that the roadbed is in disrepair and the terminal facilities inefficient then almost the only feasible solution is for French workers to repair them with French materials. Thus the very character of so much of the total productive real capital which it will be the task of a reconstruction program to restore will necessitate its being done with domestic resources and on the spot.

Real capital depletion with respect to equipment, machinery, tools, supplies, and raw materials is not on all fours with heavy fixed capital in the job of reconstruction. While building materials cannot be transported far except at a prohibitive cost the same is not true of most raw materials or light machinery. Raw materials are often imported from a great distance even in normal times. And whether tools and machinery are imported or purchased from domestic producers turns upon quality and cost comparisons. Thus the same limitations do not hamper the restoration of capital depletion of this type as govern the reconstruction of buildings and heavy installations generally. But again we need to remember that a smaller portion of a nation's total real capital resources consist of these lighter items obtainable, if necessary, from abroad. In the early reconstruction period the likelihood is that certain machinery and tools will be imported from abroad because domestic production is temporarily incapacitated or is insufficient. But one objective of reconstruction should be to lessen such foreign dependence by restoring domestic production to its prewar status.

Thus, the objective of economic reconstruction is to raise production and national income to its potential level by making good the real capital depletion which the war has imposed. Yet in the pursuit of this end it should be recognized from the outset that probably by far the greater portion of such reconstruction can only be directly effected with domestic resources. The same considera-

tions apply to the depletion of real capital used primarily for consumption purposes. But the restoration of consumption capital should be recognized from the outset as less immediately urgent than the restoration of productive efficiency.

2. Reconversion

It will not suffice to raise national output to its prewar level. Surely the objective will also be to shrink war goods production nearly to zero and expand peace goods production proportionately. If this be true then Europe (and perhaps parts of Asia also) will face a problem of plant conversion and reconversion similar to that in prospect for the United States. While the general problem in each case is likely to be essentially similar the specific job to be done in each area will probably have special, or even unique, characteristics. One can scarcely determine *a priori*, however, what the technical possibilities are likely to be or what bothersome difficulties are apt to arise. Some new investment will perhaps be necessary to carry through conversion. And some of the essential equipment may have to come from abroad. Yet in the main perhaps the job had best be done with domestic resources and labor, if indeed, any other solution is even remotely feasible.

IV. THE MEANS OF RECONSTRUCTION

WHEN the war ends it seems reasonably clear that direct assistance will be available from abroad in the form of food, clothing, seed grain, and certain other essentials immediately in short supply. For the most part it is likely that these will be outright gifts either from governmental relief organizations or from private charities. How much will be necessary and the precise form it will assume no doubt will vary from region to region. But reconstruction will follow the phase of direct relief. And it is the means of reconstruction that concerns us here.

The point of emphasis of Section III was that much reconstruction will have to be carried through by using domestic labor and domestic materials. Indeed this is the same contention that we have stressed in earlier chapters: that much real capital, much of

what will need rehabilitation, is part of the landscape and cannot be moved from one country to another. It has to be reconstructed on the spot. Reconstruction is a domestic affair from this point of view.

1. Domestic Resources and Foreign Assistance

Reconstruction can proceed more rapidly or with less sacrifice, of course, if assisted from abroad. It is important to understand clearly, however, just what forms foreign help can assume. It is of two principal types: direct assistance and financial assistance. They may merge into one another but let us first analyze them separately.

✓ Direct assistance might assume several forms apart from distinguishing between suppliers. Reconstruction could be aided by reparations in kind such as the railroad rolling stock and raw materials collected from Germany after the last war. Similar levies, supplemented by "labor battalions," are often proposed as appropriate after the present conflict. Forced labor, however, is probably less effective than a goods levy as an aid to reconstruction, though its moral and punitive appeal is beguiling. While one cannot be sure at present writing, reparations in kind may well be invoked to assist reconstruction after the present war.

Direct aid in reconstruction is also possible from less hostile sources. The more fortunate of the United Nations might supply the less fortunate with engineers, technicians, and scientists. The ruthless elimination of such persons in some occupied areas and the virtual disappearance of higher education in others will leave the number of trained technicians in most countries requiring reconstruction far below the need for them. Some highly efficient machinery with operatives, e.g., bulldozers, might be another direct contribution to reconstruction. For clean-up work and certain types of construction the effectiveness of the bulldozer is almost incredible. But it requires skilled operatives not farm laborers. At least in the beginning these would probably have to come from abroad too.

Direct aids to reconstruction from abroad, however, are probably fairly limited. They should not be counted upon for a major contribution. In the main reconstruction uses home resources.

2. Financial Assistance

Financial assistance in reconstruction can designate all those means which allow a country to increase its imports of goods and services over what it can currently acquire in exchange for its exports. It would include loans from friendly countries or a world bank or financial reparations from erstwhile enemies.

Financial assistance from abroad has the advantage over direct foreign aid of allowing a country to import whatever is needed from whatever part of the world can best supply it.⁴ This might mean food and other consumption goods which the defeated powers were nearly incapable of supplying. There is the added advantage also that it operates through regular market and trade channels, through the price system, that is, in such a way that it requires no *ad hoc* machinery. But the crux of the matter is that financial assistance in reconstruction, either loans or reparations, permits a country to draw upon the rest of the world for goods and services in excess of its ability to pay through current exports. Loans differ from reparations, of course, in that they have to be repaid and they carry an interest charge over their duration. Otherwise their financial contribution to reconstruction is essentially the same.

3. Domestic Savings

The third means of economic reconstruction available to any country is domestic real savings. The excess of total output over current consumption can be regarded as a country's real savings. The same notion can be expressed in another manner. If we consider productive resources—labor and capital goods—as the *source* of the flow of output, then that fraction of total productive resources not used in the production of goods for current consumption is available for the production of capital goods. The output of these non-consumption goods represents the country's real savings. These are obviously a third means of reconstruction along with direct aid and financial assistance.

⁴ It is assumed here that financial reparations would be transferable between countries. This might not be the fact. Reparations from Germany, for example, might take the form of blocked balances of one of the many types that the Germans themselves devised in preparing for the war.

The proportion of its total resources that any country can devote to reconstruction will depend partly on the level of national output and partly upon the ability and willingness of the people to limit their consumption and general well-being. If the national output is at an extremely low level, perhaps almost the whole of the current input of productive resources will be absorbed in maintaining even the simplest existence. In overpopulated areas where a low per capita income was typical before the war the destruction of what few capital assets the country possessed may limit postwar output to a bare subsistence level or below. Greece is perhaps a case in point, and parts of China as well. But it is probable that in most of western Europe production, even very shortly after the war ends, will be somewhat above a subsistence standard if at all reasonably apportioned. These latter countries will have a choice, as a matter of public policy, between reconstruction by somewhat different routes.

It is important to recognize the alternative choices and what they imply. As we have repeatedly argued, much of the reconstruction can only be done directly by the employment of domestic resources. But reconstruction can proceed at different rates and with or without assistance from abroad.

In a broad sense a country that elects to reconstruct wholly without aid from other countries can do so either slowly and gradually, without tightening its belt too obviously, or alternatively, it can reconstruct quickly by deliberately putting itself on very short rations. These phrases are not to be taken quite literally of course. The point is that by postponing the reconstruction and refurbishment of much of its consumption capital equipment (housing, public buildings, etc.) until its productive equipment is again reasonably efficient the whole reconstruction job can probably be done very quickly. On the other hand, it would be possible to proceed more gradually and allow an improvement of living standards at the same time. Reconstruction without foreign assistance can proceed slowly or rapidly according to the policy adopted.

When we suggest that reconstruction can be carried through without aid (other than reparations) from abroad we do *not* mean that the country would not, or should not, *import* anything from abroad. Not at all. We mean only that it reconstructs out of its own resources by importing nothing from abroad for which it can-

not make payment, either from balances already held or from current exports. But there is no borrowing abroad beyond the usual credit terms. Almost all countries will have to import raw materials, (some) machinery, perhaps food even, in carrying through their reconstruction program. But it is one thing to pay for these imports currently by exports and another to obtain them by long-term borrowing in foreign centers. In the first case the country reconstructs out of its own resources altogether. In the second it does not.

From one point of view reconstruction with the assistance of foreign loans is a means of avoiding the belt tightening that would otherwise be inescapable. It is also a means of speeding up the whole process. Theoretically, a country could reconstruct its economy at the maximum rate if it drastically restricted domestic consumption and the reconstruction of consumers' capital and simultaneously borrowed heavily abroad to import those materials and supplies that would most quickly and effectively increase domestic production. But it is unlikely that any nation would deliberately elect such a course. And it might encounter serious difficulty if it did. Yet it is worth emphasizing that foreign borrowing is a means of avoiding the rigors of a Spartan standard of living while reconstruction is in process. As we have argued repeatedly, much of the reconstruction has to be done with domestic resources in any case. Its very essence imposes this requirement. The only question is whether the country should, for a time, maintain a reasonable standard of living on a credit basis or proceed strictly on a current sacrifice arrangement. And of course with respect to each plan it is not a case of all or nothing. The choice is rather between more or less borrowing as opposed to more or less self-sacrifice. The range of variation between the extremes, however, is likely to be considerable for most countries.

At the risk of anticipating what more properly belongs in a subsequent chapter we are impelled to add a further word.

We have written above as if there were necessarily a deliberate choice to be made between reconstructing with or without foreign assistance and between doing so at a rapid or a slow rate. From one point of view this is quite unrealistic. It is unrealistic in the sense that, if nothing is done by way of deliberate policy choice, reconstruction is likely to proceed along lines that are fairly easy

to discern. If consumers are allowed free play in the expenditure of their incomes, if industry is allowed to produce whatever goods it finds most immediately profitable, and to employ resources accordingly, and if governments and private firms borrow abroad whenever they can obtain a loan, the course of events in the reconstruction period is not difficult to visualize. Consumers will want to live well and consumption goods and luxury goods will flow to the markets from factories at home and abroad. The government is likely to consider housing projects equally as important as the reconstruction of the railways. Much will be imported that could well be left abroad. And the whole reconstruction of the capital depletion inherited from the war will proceed haltingly amid the chaotic conditions of high wages, high prices and the other familiar symptoms of inflation.⁵

The consequence is that it appears eminently wise to see clearly precisely what reconstruction requires and the means by which it can be effected. Once this is recognized, the appropriate policies to be invoked are almost painfully self-evident. And it seems worth remarking that these comments apply to prospective lenders almost as much as to prospective borrowers. Each is likely to mistake the glitter for the substance.

4. *Concluding Comments on Choice of Means*

The means of reconstruction are thus domestic real saving, financial assistance from abroad either as loans or reparations, and direct contributions from foreign sources in the form of materials, reparations in kind, enforced labor, and donated services of skilled tech-

⁵ In commenting on imports into Europe after the last war the League of Nations wrote, "The quantum of the imports of foodstuffs, which were more liberally furnished than raw materials, was some 10% higher in 1919 than in 1913 and 20% higher than in 1927; the quantum of raw material imports, however, was 47% lower than in 1913 and 38% lower than in 1927. What is perhaps most striking is the very large import of finished goods, which was 36% above the 1913 and 67% above the 1927 quantum. These large purchases reflect both the great demand for such goods on the part of a population which had not been able to buy them for a number of years, and the temporary inability of the local industries to produce the commodities desired owing to the time involved in the reconversion of plant, the purchase of raw materials from abroad, the assembling of a labour force, etc." *Europe's Overseas Needs, 1919-1920, and How They Were Met*, p. 16.

nicians. And accordingly as these means of reconstruction are combined and integrated will the whole process move rapidly and easily or haltingly and in confusion.

The world at large has more than a passing interest in seeing economic reconstruction proceed smoothly and without excessive hardship. There is first of all the simple humanitarian desire not to impose needless suffering by prolonging through many years what might be achieved in a year or two. This argument can be given a selfish, nationalistic twist by contending that economic suffering abroad, because of delayed reconstruction, is a threat to world order and stability, and hence should be avoided. On the economic side one might argue, moreover, that the economic rehabilitation of impoverished areas is a necessary step towards placing world trade upon a sound basis: if large segments of the world's economy are at a low level of productivity because of delayed economic reconstruction then the rest of the world cannot achieve its potential levels of economic welfare.

All these considerations come to focus in the question of how much outside assistance should the rest of the world contribute to economic reconstruction on humanitarian, political, and economic grounds. The humanitarian and political considerations we can leave aside in the present context. On the economic side, however, there is no doubt that loans (and reparations) can both hurry along reconstruction and diminish its sacrifices. With any given rate of domestic saving, foreign loans allow economic reconstruction to proceed more rapidly than would be possible without them. Similarly, when loans are available, domestic consumption need not be so severely curtailed to achieve reconstruction within a given time interval. Foreign borrowing both hurries the pace and eases the burden.⁶

But in considering foreign lending to assist reconstruction one must keep in mind the substance of reconstruction. We have been

⁶ It is truly amazing how rapidly reconstruction *can* proceed with modern techniques. It is reported that in the *six months* following upon the fall of Naples (October 1, 1943, to April 1, 1944) that port was reconstructed sufficiently to handle 2,375,229 long tons of cargo. This tonnage was nearly equal to the total cargo handled by the Port of New York in the record peacetime year of 1939. *New York Times*, September 3, 1944, I, p. 11. What the *costs* of restoration were is not reported. But considering the urgency of military operations the cost must have been enormous.

at some pains to emphasize that undermaintenance and physical destruction of real capital is the essence of the problem of economic reconstruction. The restoration of much of this real capital, consisting as it does of structures and dwellings and public developments, means restoring capital assets that have two pertinent characteristics in relation to foreign borrowing. In the first place, they are, many of them, "capital intensive" projects: their annual product is small relative to the investment committed. In the second place, not a few of them, restoration of housing, for example, make little or no contribution to the capacity to export, and hence to meet the debt service charges which foreign borrowing imposes upon the country. In other words, a large part of the real capital depletion which rehabilitation loans can make it more comfortable to restore will be of a kind requiring a heavy initial investment from which a domestic yield can only be expected at modest rates over a long period. And there is the transfer problem as well.

The more detailed discussion of these problems is postponed until a later chapter (Chapter VI). We mention them in the present context because it is easy to pass from the simple fact that foreign borrowing can ease and hasten economic reconstruction (which is clearly desirable on a number of counts) to the conclusion that rehabilitation loans are obviously required. But a loan contemplates repayment and service charges. The substance of economic reconstruction, that is, what kinds of capital have to be restored and in what amounts, seems to raise some question as to the capacity of the borrowers to meet loan obligations. It would not appear desirable for either borrowers or lenders to enter upon transactions which were likely to terminate in widespread defaults. And in fixing the relative contributions of foreign borrowing and domestic saving to reconstruction it might be well to bear such considerations in mind.

V. SUMMARY

THUS economic reconstruction is partly a conversion problem and partly a problem of restoring accumulated capital depletion occasioned by undermaintenance, destruction and theft through enemy action, and the consumption of real working capital assets. The

conversion problem will be more or less common to all countries and calls for no special comment. Accumulated capital depletion poses a number of troublesome problems.

Until it has been partially made good, production will be inefficient and remain much below its prewar level. The acute shortages of real working capital resources will be the most immediate serious barrier to a restoration of output once the period of direct relief assistance from abroad has passed. But the serious depletion of the more durable capital resources will also hamper production and they cannot be so quickly restored. Since so much real capital consists of buildings and the results of construction activity it can only be restored by using domestic labor and materials on the spot. Reconstruction cannot be "imported" in any direct sense. If national income is to rise above its immediate postwar levels, national output has to be reconstituted in such a way that more productive resources are devoted to capital goods production and less to consumption goods production. And there are reasons for believing that this might not occur automatically through the operations of the price system in adjusting the relative prices for capital goods and consumers' goods. It may be necessary to take deliberate steps to increase savings by priorities, rationing, and a severe excise tax.

Though capital restoration in a direct sense means using home productive resources, the task can go more rapidly and with less hardship if assisted from abroad. Foreign assistance may be direct through reparations in kind or of a financial nature through reparations or loans. These can supplement domestic savings as a means of reconstruction.

Foreign borrowing for reconstruction allows a country to support a higher level of consumption (with any given rate of reconstruction) because it permits an increase in imports over the amount that can be currently purchased from exports. But the contribution of foreign borrowing to exporting capacity through allowing a higher level of consumption is not self-evident. Consequently there may be difficulties in meeting debt service charges even though foreign borrowing facilitates reconstruction. This problem is dealt with at some length in Chapter VI.

Planned economic development is also a species of real capital accumulation although it differs in many respects from capital

accumulation for economic reconstruction. Yet there is a similarity between the two. And before considering the balance of payment problems more or less common to reconstruction loans and development or industrialization loans, it seems useful to analyze deliberate industrialization in some of its aspects. We turn to this problem immediately in Chapter V.

5 ECONOMIC ASPECTS OF INDUSTRIALIZATION BY PLAN

THE industrialization of undeveloped areas has a number of aspects: political, sociological, and economic. We can only endeavor to deal with the economic aspects and only a portion, indeed, of these. The economic aspects are principally two. The "financial" on the one hand and the "real" or the goods side on the other. The financial side of industrialization and international investment is exceedingly important and its intricacies have been often explained. Foreign borrowings and the balance of payments, the "transfer" problem, and related financial topics have fascinated economists since the earliest days. While these will be subsequently considered, our immediate concern is with the other side of the shield: what happens in real terms when industrialization occurs. In other words, our present interest is in the changes in its real capital resources as a country industrializes rather than the arrangements by which those changes are financed. The immediate focus is upon the "goods" side of the industrialization process.

The present chapter is organized as follows. We shall first examine the meaning and objective of industrialization as applied to the postwar world. In Section III we consider industrialization in relation to a country's needs and resources and the possibility of receiving assistance from abroad, and the form that assistance is likely to assume in real terms. Finally we turn to the question of some of the probable consequences of industrialization both in the areas being industrialized and the world at large.

I. THE MEANING AND PURPOSE OF INDUSTRIALIZATION

INDUSTRIALIZATION as it relates to material changes means an increase in the kinds and quantities of real capital. As the country

becomes more industrialized there is more real capital. The same change is often regarded from the point of view of the employment of the people. As a country industrializes a larger percentage of the working population is employed in industry as opposed to agriculture, fishing, or pasturing. But since the amount of real capital per worker is greater in industrial than in non-industrial pursuits this comes to the same thing: more capital per head is employed in production. The greater real capital resources mean greater production and hence improved standards of living.¹ As we noted earlier in Chapter II the marked differences between countries in their per capita national incomes are, in part, attributable to the differences in the amount of available real capital per head.

Hence a conscious program to industrialize an area is essentially a plan to raise its per capita income therein by providing the inhabitants with more and better capital goods.²

There seems to be a tendency to think of industrialization as a problem of importing some machines and setting up little factories. Actually, of course, this is often a minor phase of the whole process. We have seen in Chapter II what a large fraction of total industrial capital consists of railroads and utilities having a high capital intensity. The achievement of industrialization typically means bringing these capital intensive industries into existence.³ This

¹ Theoretically an increase in real capital resources might be altogether in the non-productive category so that total production might not be any greater. Yet in the real world one can scarcely imagine conditions in which this might occur on any large scale. Foreign loans have on occasion been used almost wholly for consumption purposes—parks, zoos, public buildings, etc.—but in general a growth in real capital per head means a growth in productive capital and by the same token a rise in total output apart from the “consumption services” yielded by parks and zoos.

² It does not follow of course that all such schemes aimed at raising real incomes through industrialization can or will achieve their end. Adam Smith long ago drew attention to the stupidity of trying to grow grapes in green-houses in Scotland, even granted the technical feasibility. Similarly, a bold scheme to industrialize Hawaii or the state of Nevada would almost certainly fail to raise real incomes appreciably.

³ Cf. the following, “Along with the exploitation of the natural resources, minerals, agricultural produce, timber, etc., there must be the development of communications and marketing facilities. The communications, possibly precarious and irregular, which will suffice to bring settlers once and for all to a new country, where they hope to find a life of independence and simple plenty, close to nature, will not serve the purpose. There must be systematic and well-organized means of transportation of commodities to and fro between

means a heavy initial investment followed, if the undertaking is successful, by a small annual yield. Professor Knight's study of Morocco makes this point quite clear. He writes: ⁴

Theoretically, Morocco borrowed to equip itself—*mise en valeur*, the French put it, literally "bringing under exploitation." Much of the labor and some of the materials such as cement have been local. . . . Viewing equipment from the angle of accounting, the expense groups, in order of magnitude, have been: (1) transport and communications (a third of the total); (2) port improvements; (3) agriculture and mining promotion and equipment (including irrigation works, forestry, colonization, and the search for mineral resources); (4) public buildings (including administrative offices, schools, posts and telegraphs and hospital facilities). . . . About a tenth of the whole has gone for public buildings.

Hence in reasoning about industrialization of underdeveloped areas one needs to keep in the foreground the fact that something more is involved than shifting people off the land into neat factory buildings. The heavy investment in public and quasi-public developments such as transportation and communication is typically the crux of the problem.

The observed coexistence of industrialization and (relatively) high real incomes has led to the conclusion that a deliberate industrialization of underindustrialized areas will raise their real incomes. From the point of view of those countries intending or hoping to industrialize after the war, the raising of real incomes is perhaps more nearly the "objective" of industrialization than anything else. Planned industrialization in the postwar period has a strong "welfare" slant. And the dominance of this aspect in the proposals now being formulated raises some special problems. More specifically, when the improvement of real welfare is kept to the forefront in plans for the industrialization or "development" of low income areas the phrases "more investment" or "more capital" rather easily take on a meaning and connotation that is notably broader than that heretofore assigned to them in international economic relations. For example, if the purpose is to augment real income, the drainage of malaria swamps and the construction of

the country and some point or points of access to the civilized world. Channels must be created for the flow of its natural products to market." Hawtrey, R. G., *Economic Aspects of Sovereignty*, New York, 1930, p. 42.

⁴ Knight, M. M., *Morocco as a French Economic Venture*, New York and London, 1937, pp. 70-71.

textile plants may perhaps both be regarded as "investment" from the broad social point of view. But they are scarcely the same in other respects, for instance, the balance of payments problem. Yet the connection between more capital investment (broadly interpreted) and higher real incomes has been carefully noted with obvious policy implications for the after-war period.

From the point of view of the wealthier countries, industrialization and "development" projects abroad are not without apparent appeal. Humanitarian and charitable motives have of course been present. But the current case for industrialization abroad (as usually presented) is bolstered by more than sympathy. Two points seem to be stressed more than others by the proponents.⁵ First, it is alleged that capital exports from the wealthy countries will facilitate the task of keeping output at satisfactory levels. If savings at high income levels tend to be excessive then investment abroad will be beneficial on purely selfish grounds. Second, it is not infrequently argued that, since industrialized countries trade heavily with one another, greater industrialization in the world at large will augment total world trade to the benefit of even the wealthier countries. Hence beyond the customary profit motive and the special humanitarian urge for foreign investment there may be the added drive of enlightened national self-interest to push industrialization schemes in underdeveloped areas.⁶

In a broad view, therefore, industrialization means an increase in the total real capital with which people combine their labor and land to yield their annual real income. More real capital will enhance real income. A higher real income is the purpose of industrialization. But its gains are not restricted to the countries being industrialized. The already industrialized areas are also to benefit. Industrialization schemes are to improve welfare in the world at large. All these claims may be warranted. If justified they

⁵ These arguments are considered below in Chapter IX in some detail.

⁶ Cf. "Preliminary Draft Outline of a Proposal for a Bank for Reconstruction and Development of the United and Associated Nations," as reported in *Federal Reserve Bulletin*, January, 1944, pp. 37-41. The preamble in paragraph 4 reads in part, "With adequate capital . . . the newer countries can undertake the economic development of which they are capable. International investment for these purposes can be a significant factor in expanding trade and in helping to maintain a high level of business activity throughout the world."

constitute sufficient reason for pursuing the program with zest. But it may be well to examine the arguments more carefully.

II. THE PATTERN OF INDUSTRIALIZATION AND DEVELOPMENT PROJECTS

WE HAVE already suggested that it is an easy transition from the observation that rising real incomes usually accompany industrialization (in its more usual sense) to the extension of the word "investment" to cover a variety of other projects designed to increase productivity and real incomes.⁷ It appears desirable, for the present, however, to restrict the word industrialization to the more traditional types of investment such as providing machinery and factories for the production of goods in a fairly direct way. Development projects, the broader term, would usually connote industrialization in the narrower sense but other undertakings as well. From the side of investment one might perhaps speak of "Developmental Investment" and "Industrialization Investment," with the latter being the narrower term.

1. *Background*

The concern of national governments to industrialize their countries is of course nothing new. And their involvement has ranged from encouraging and assisting private entrepreneurs to the outright development of whole areas. The protectionist movement in the nineteenth century was a deliberate program of industrialization. And at least in the United States similar programs have been sponsored by the separate states and by municipalities. Government sponsorship of industrialization has a long history.

Where in the past national governments have deliberately

⁷ The extension of the word investment to cover various activities not usually embraced by the term in earlier times seems to have grown up during the great depression as a means of dignifying certain activities that governments thought it desirable to undertake to aid employment, e.g., land reclamation schemes, the correction of soil erosion, reforestation, etc. This is not to say that these projects should not have been undertaken. Quite the contrary probably. We only mean to draw attention to the fact that two decades ago they would not have been called "investment."

adopted policies aimed at the industrialization of their own countries, the objectives have usually been reasonably clear. In brief, the aim has been to improve the "welfare" of the citizens. Welfare, to be sure, was not always conceived in the restricted sense of economic welfare. Political dangers, especially the risk of armed conflict, were often to the forefront in decisions relating to industrialization. Yet, while specific protective duties and subsidies often sprang from mixed motives, it is nevertheless true that governments viewed the industrialization of their countries as an indispensable step towards national security and, hence, national strength and opulence. Autarchy, as developed and elaborated by German writers after Hitler came to power, represents perhaps the ultimate refinement of long familiar doctrines.

After 1929, these earlier motivating factors in industrialization were supplemented and in some cases over-ridden by new considerations. Unemployment became widespread. The dependence of national well-being upon foreign markets and foreign sources of supply was acutely apparent. Harassed governments turned to industrialization as a remedy for unemployment and as an insulation from disturbances and dislocations that seemed to originate abroad. It appeared to many national governments that deliberate industrialization offered a remedy for unemployment, while it provided, at the same time, a powerful resource in the event of war.⁸ That a number of such programs, simultaneously undertaken, could lead to the separate and mutual impoverishment of the nations was not at once apparent. The objectives of industrialization were reasonably definite and precise even though those objectives were perhaps not attainable by the means invoked.⁹

⁸ Cf. the following on the Turkish scheme of industrialization given new impetus by the great depression. "... the immediate result of this quick industrial development was to increase steadily the effective force of national labour. A host of potential workers, who were thus far unable to find employment, either in the rural districts, or in the cities, have been attracted into new fields of activity. The huge expansion of industry is supplying life-blood to a mass of skilled and value-creating workers." Press Dept. of the Ministry of Interior Affairs, *Turkey on the Way of Industrialization*, Ankara, 1937, p. 15.

⁹ The objectives of the Turkish plan have been set forth as follows:

"The purpose of making Turkey an independent nation finds its expression, nowadays, in the will to change her into a thoroughly constituted and self-sufficient body" (*Ibid.*, p. 34). More specifically the motives have been stated to include the following: (1) overcome the shortage of foreign currencies, (2) the desire to get better returns for workers and farmers by avoidance of de-

2. *Alternative Patterns of Postwar Industrialization*

One would presume that postwar industrialization schemes and programs for the economic development of backward areas were not going to be reared upon an autarchical framework. One would also assume that the strong desire to "stabilize" employment and national income would not be desired at any cost.¹⁰

But if the aim and pattern of industrialization and planned development is not self-sufficiency for its own sake nor the careful nurture of a stable poverty level of national income, one needs to inquire what the pattern will or should be. The mere definition of industrialization as "an increase in the amount of capital equipment and productivity per employed person and variety of goods" does not answer this question in a satisfactory manner.¹¹

There appear to be at least two principal patterns that deliberate industrialization might assume after the war.¹² One of these is likely to increase the flow of world trade and the other is likely to diminish it.

✓ (i) One species of industrialization would be where the nation endeavors to concentrate upon industries whose products can be sold abroad and command a high value. Industrialization is not sought as a means of *avoiding* imports but as a means of obtaining sufficient foreign exchange to command such imports as will afford

pending upon fluctuating world prices, (3) to enable the country to meet its own requirements. "... the ultimate aim of the Plan is not the eventual exportation of the goods manufactured in our factories, ..." (*Ibid.*, p. 39.) See *ibid.*, pp. 34 ff. and *passim*.

¹⁰ Certainly any country could stabilize its national income if it were willing to push the level of its national income low enough. But after a point stability for many countries would mean a very heavy sacrifice in diminished average real income. A country poorly endowed with resources might have an oscillating income by specializing its production and engaging in world trade. But the average annual income might be quite high by comparison with what it could expect from seeking stability and, therefore, insulating its economy from outside influences by withdrawing from world trade. Certainly a point would come where the country should properly ask, "Is greater stability worth what it costs?"

¹¹ Frankel, H., "The Industrialization of Agricultural Countries," *Economic Journal*, June-September, 1943, p. 191.

¹² These patterns might be followed either as a consequence of careful direction by the State or of allowing private initiative a free rein within certain general rules established by the State, e.g., a protectionist policy.

the population a high standard of living. The aim is not to withdraw from world trade, but to participate in it more effectively.

Switzerland is case in point. Switzerland exports a large fraction of her industrial production and the proceeds finance a high standard of living for her people. We read, for example,¹³

In addition, as Switzerland is one of the few industrial countries without direct access to the sea, it has been necessary to create industries where the role of transport is unimportant and where preference is given to articles representing a large value in a small volume, thus entailing low freight costs. The importance of quality and handiwork is paramount. . . . The industrial census taken in 1929 listed 410,000 workers subject to the factory laws of the country. Of this number 170,000 worked in enterprises which exported more than ninety per cent of their total production, and approximately 120,000 more in industries exporting from sixty to ninety per cent of the total.

Denmark is another example of specialized industrialization (in agriculture) with the intent of engaging in world trade. Sweden, Belgium and the Netherlands are others, although each presents certain unique characteristics.

Planned industrialization programs along the pattern of participation in world trade would probably increase world trade and magnify the degree of specialization in manufacturing between countries. Many countries might export textiles, for example, but specialization as to type might be highly developed among them. Such specialization in international trade in machinery and specialty goods indeed appears to have occurred among industrial countries in recent years.¹⁴ Goods in the same general category are both exported and imported but they are differentiated as to quality and purpose.

Specialized industrialization with the objective of more (not less) active participation in world trade, the Swiss pattern, is probably not feasible immediately for many countries that will wish to

¹³ Jacquelin, Dorothy Grant, *Swiss-American Economic Relations*, Geneva, 1939, p. 106. We do not mean to imply that the Swiss pattern was historically a case of deliberate State planning. We only mean that its foreign trade now has a particular pattern which other countries seeking to industrialize might or might not follow. Agriculturally Switzerland has been vigorously protectionist.

¹⁴ Cf. Frankel, *op. cit.*, pp. 196-201.

industrialize after the war.¹⁵ Their people are too unskilled and lacking in "know how." Without government-sponsored educational programs in technical subjects not much progress could be expected. Even then the beneficial results would only gradually emerge. Where industrialization according to the Swiss pattern is practicable—perhaps in parts of Southeastern Europe, sections of North Africa, and some portions of China—two further conditions appear to be indispensable to its success. On the one hand the industrializing areas will need subsidies until they can get their new industries established. These may be tariffs and/or bounties and as such are open to the usual objections. "Infant industries" are incredibly slow to stand on their own feet. Secondly, the scheme presupposes that already industrialized countries will not erect tariffs to protect domestic producers from the "new competition." From the point of view of the countries undertaking to industrialize their economies to improve real standards of living it may appear that they are embarking upon a long and uncertain journey if they follow the Swiss pattern of industrialization.

It is the uncertain results of industrialization according to the pattern that seeks to maximize effective participation in world trade that make industrialization to supply the home market (with such exports as are possible of course) the more attractive alternative plan to most governments.

(ii) The arguments used to justify forced industrialization after 1930 as a remedy for unemployment are likely to be refashioned slightly and used to promote industrialization as a device for maintaining a stable national income at (acceptably) high levels.¹⁶ Secur-

¹⁵ It should also be remembered that the political "spheres of influence" which may be established after the war (if not already agreed upon) will have a marked bearing upon the type and rapidity of industrialization.

¹⁶ An eminent American writer has recently stated the case for the Netherlands Indies as follows: "In order to increase stability and to raise living standards the unbalanced dependence of the Indies on foreign markets must be reduced, even at the cost of damage to the theory of world-wide free trade. For this purpose it will be essential to continue and to extend the process of diversification of production and of industrialization which the Dutch have begun, particularly in the depression years and as a result of war pressures. Under modern conditions no country which relies primarily on the export of raw materials can come to even a rough approximation of equality of bargaining power, and this was brought home to the Indies with tragic force in the depression years because of the undue emphasis upon the export of a few

ity and stability seem to be more highly prized by individuals and by governments alike than they were even a generation ago. A lower trend line of income development may be preferred to a higher if the short-time yearly fluctuations in income above and below it are significantly eradicated. Hence many countries, especially the large raw material producers as in Latin America and the Far East which formerly relied on one or two principal exports, are likely to desire industrialization as a stabilizer of national income and employment. The validity of the argument that more industrialization will provide greater stability we cannot now pause to examine critically. Its potency is already great in a variety of circles.¹⁷ It will draw further support, moreover, from the fact that industrialization in some of these countries has already proceeded some distance during the present war when they have been cut off from their usual suppliers.

Industrialization to achieve stability will dictate a different pattern of industrial development than industrialization on the Swiss pattern. The types of industries most likely to be developed under the stability pattern will doubtless vary from country to country and will depend upon its natural resources, its borrowing capacity abroad, the character of the population, and last but not least the firmness and tenacity with which it embraces industrialization as the passport to stability. Two main types of industries are perhaps likely to be promoted into existence. First, simple consumers' goods such as textiles, clothing, simple housewares, and the like not requiring highly skilled labor nor heavy capital investments in relation to value of annual product. Second, industries which seek to

products. If the Indies are to strengthen their position in the world to a point where they will be able to maintain an actual independence they must be empowered to round out their economy through the use, where necessary, of tariffs, quotas, and other similar devices which would give new industries and new lines of production an opportunity to develop." Emerson, Rupert, *The Netherlands Indies and the United States*, Boston, 1942, pp. 81-82.

¹⁷ The appeal of the stability argument for industrialization to national governments and others is of course many sided. From a political point of view not the least important of these is the influence it gives a political authority over the development of trade and industry within its own country. Apart from some such "practical" motives in the political sphere the stability argument has other attractions. One is that results are visible and frequently not long delayed. All these are over and above the advantages of the argument on technical economic grounds relating to employment policy on Keynesian foundations.

develop and partially to fabricate domestic raw materials for local consumption. Even low grade iron deposits, for example, will probably be opened up and the effort made to nurture a domestic steel industry. Around both of these two groups of industries certain ancillary industries, such as maintenance and repair, are also likely to appear. In general, industrial development to achieve stability will in each instance be conditioned and shaped (given the natural resources and pre-existing economic development of the country) by the availability of capital, and by the skill, literacy, and temperament of the people.¹⁸

Such industrialization schemes are probably impossible without subsidies (e.g., tariffs) and in the long run are likely to mean a diminution of total world trade in relation to national incomes. Whether they will mean a declining aggregate of world trade it is quite impossible to determine at present. It will depend partly upon how much and for how long protection is necessary and partly upon the particular industries developed. Certainly if industrialization to achieve stability is also tied in with the hope of exporting abroad as much or more than before, then that hope is not likely to be fulfilled. No considerable number of countries can expect drastically to curtail imports and simultaneously to maintain (or raise) exports. The history of the 1930's seems conclusive on that point. Finally, we feel constrained at least to mention the possible dangers inherent in plans to industrialize a number of countries concurrently without anyone being able to foresee the probable outcome when all the plans reach fruition. In the writer's judgment no planning body, however staffed with "experts," is capable of accurate foresight on problems of this magnitude. The nationally conceived plans may integrate or be contradictory. No one can be sure until they have been at least partially translated into realities.

¹⁸ Programs such as these—concentrating on consumers' goods production and semi-processing of raw materials—are envisaged for some of the British colonies after the war. Conditions in some of these are apparently extremely acute because of population pressure, almost complete reliance on one product, and an absence of local industry which means that any rise of income goes almost entirely for increased imports. In 1936, for example, Uganda had 80 per cent of its exports in cotton, the Gambia had 98 per cent in ground-nuts, and Fiji 70 per cent in sugar. For an interesting discussion of these problems see Ady, P., "Colonial Industrialization and British Employment," *Review of Economic Studies*, Winter, 1943, pp. 42-51.

It is too early to know whether industrialization of underindustrialized areas after the war is more likely to follow the Swiss pattern or the pattern that sets a premium upon stability and security—probably some of both, with a predilection for the latter. The consequences in terms of world trade, balance of payments, capital exports, international repercussions, etc., are clearly not such as to make it a matter of indifference.¹⁹

(iii) It is self-evident that the problems of planned industrialization and development will be partially shaped by peculiar local conditions. Guatemala is not Roumania and China differs from Brazil. The present essay cannot explore these important differences. Special studies are obviously necessary. But we may briefly mention some of the problems that seem to confront a number of agricultural countries which will be seeking to industrialize.

The problem that many agricultural countries desiring to industrialize have in common can be baldly stated as follows. The agricultural population has a low standard of living because there are too many people in agriculture and hence their individual productivity is exceedingly low. But any improvement in productivity tends to be gobbled up in increased population rather than in improved living standards. In Southeastern Europe and parts of the Orient (including some British colonies) these Malthusian tendencies appear to be so strong as almost to nullify any beneficial effects that industrialization might have in raising living

¹⁹ Some of the announced postwar plans are extremely ambitious. One plan for India, for example, looks forward to tripling the national income in fifteen years. See the highly critical article by Iyengar, S. K., "Industrialization and Agriculture in India," *Economic Journal*, June-September, 1944, p. 201. The so-called "Bombay Plan" calls for an investment of \$30 billion in fifteen years. The Hon. Raja Dharam Karan Bahadur is quoted concerning this plan in part as follows: "... since the advent of the present war, with its unbounded possibilities and the entire change-over from man-power to mechanization, it is realized that India must be made self-supporting. Improvement in the technique of production, viz., employment of mechanical methods and the use of chemical fertilisers, is necessary to bring about increase in the yield of particular crops and the raising of better and more remunerative crops. Our agriculture must therefore be strengthened by the supply of cheap machinery for which a machine tool industry is a *sine qua non*. This can be done with a large-scale manufacture of iron and steel. . . ." As quoted by Iyengar, *op. cit.*, p. 192. These remarks, in places, suggest industrialization with a view to avoiding international trade rather than the reverse.

standards.²⁰ Displacing people from agriculture to industry only seems to up the rate of increase in the agricultural population and ultimately leave matters much as they were.

In Southeastern Europe the productivity of labor, although apparently greater in industry than in agriculture, is yet appreciably below the productivity of labor in industry in the more highly developed industrial countries. Consequently in the agricultural countries domestic industry can only develop to any extent if afforded extreme protection. And even then its (domestic) market would be limited by the low incomes of the bulk of the population which are drawn from agriculture. But being less efficient and having a limited market, home-manufactured industrial goods would tend to be high priced in comparison to the imported goods so that, at least immediately, and probably for a considerable time, the people would be made worse and not better off by domestic industrialization.

These problems seem to be complicated in Southeastern Europe by the added difficulty that the staple agricultural crops are there produced at a high cost in comparison with the same crops imported into Europe from the New World. Consequently to obtain a European market for their agricultural products these countries in Southeastern Europe are almost forced to permit imports of manufactured goods rather than to develop home industry by virtually prohibitive tariffs. Hence agriculture cannot contract unless industry greatly expands and industry cannot expand without a protective tariff that would be likely to impoverish agriculture still further. A variety of schemes of course have been proposed to solve this dilemma: land reform, diversification of agriculture, shifts in the type of crop, improved marketing policies, producers' cooperatives, and others. But they all seem to leave something to

²⁰ "Although Eastern Europe from the Baltic to the Adriatic and Black Sea is not very densely populated, there is an agricultural over-population in this region. That is to say, a greater number of people live on one unit of the cultivated surface than are required to work on it or than can possibly attain a decent standard of living from it. This phenomenon has grown to such an extent in Poland, Roumania, Yugoslavia, Greece, in the eastern parts of Czechoslovakia (Slovakia) and in the mountainous parts of Austria, that it now represents one of the gravest social and economic problems of this region." Bicanic, R., in *Bulletin of the Commission to Study the Organization of Peace*, Vol. III, No. 1 and 2 (January-February, 1943), p. 5.

be desired or to require such drastic political and economic changes elsewhere that their efficacy is at least questionable. In any case it would be naive in the extreme to suppose that simple industrialization through foreign borrowing will suffice to eradicate the major difficulties.²¹

We mention these problems of the industrialization of agricultural areas not to suggest that "nothing can be done" but to emphasize that the whole pattern of planned industrialization will often be a much more complicated arrangement than at first appears. It will not be simply a matter of making "capital" available with smooth sailing for all interested parties from there on in.

(iv) It remains to add a word or two concerning "development" schemes and investments. As already suggested, if the argument for industrialization is predicated upon improving real standards of living one can progress easily to the contention that certain other projects other than industrial investments in the usual sense will contribute as much or more to the raising of living standards. In general language the argument would be for projects having a high social net productivity but perhaps a low private net productivity. No private enterprise could afford to undertake them but their contribution to aggregate productivity might be large.

Perhaps the epitome of such projects from a technical point of view is the TVA in the United States or the Dnieperstroy dam in Russia. Integrated transportation schemes, harbor developments, hydroelectric power installations, irrigation projects, and flood control schemes are other examples. In the main such projects are perhaps too large and their benefits too widely diffused to be undertaken by private individuals seeking money profits. If they are undertaken at all they will have to be wholly or partly under the auspices of the State.²²

If one labels an "investment" to be anything likely to contribute

²¹ Cf. Basch, A., *The Danube Basin and the German Economic Sphere*, New York, 1943, *passim*, Frankel, *op. cit.*, Rosenstein-Rodan, P. N., "Problems of Industrialization of Eastern and Southeastern Europe," *Economic Journal*, June-September, 1943, pp. 202-211.

²² A private survey of the "necessary" investments in Poland mostly of a nature that could be termed economic development will be found in Wellisz, L., *Foreign Capital in Poland*, London, 1938, Ch. IV. Of the public works deemed essential and listed about 45 per cent was to go for general electrification works and about 30 per cent for highway construction. P. 198.

to the improvement of productivity and standards of living the concept becomes amazingly flexible and extensible. It is an easy step from the conclusion that an irrigation project is a proper public investment to the view that planned technical education programs are also an "investment." For, it can be argued, if flood control and a steady water supply will increase per capita productivity so also will training people to be better farmers, more skilled stock-raisers, or tolerable mechanics. Finally, it may be urged that the process is not always one directional: improved health and sanitation, and possibly housing, would make the population more productive by first raising their living standards. When one moves into projects of this kind it is not difficult to go a long distance. The number of "investment projects" that might be undertaken is legion and their aggregate cost truly enormous. There are almost no limits to "investment outlets abroad" when the term is so used.

But before passing too rapidly into a contemplation of the number of "useful" or "beneficial" development projects that might be undertaken over the earth's surface it is well to remember that these entail a cost. And it is reasonable to point out that there must be some correspondence between the prospective returns (benefits) and the cost of acquiring them. Without endeavoring to suggest yardsticks for this problem we may make one observation. According to Colin Clark's figures the combined national incomes of Hungary, Greece, and Rumania averaged about \$3.59 billions of dollars on the average for period 1925-34.²³ The cost of the construction work and installations on the TVA project was something over \$700,000,000. The writer is far from sure what the full meaning of this comparison is. He is certain, however, that much that is technically or physically possible for improving areas with low standards of living entails a cost that is far beyond the capacity of such economies even to maintain, much less to build.²⁴

²³ *Op. cit.*, p. 40.

²⁴ The word cost is here used loosely. The "cost" of such projects could be "too large" in relation to the national income, in comparison to the benefits to be had from alternative uses of productive resources, or, if financed by foreign borrowings, too large in relation to resulting exports and the balance of payments burden. Without stopping to explore these, some proposed development projects seem to be "too costly" on all three counts.

III. THE CONSEQUENCES OF INDUSTRIALIZATION

WE HAVE already remarked on the impossibility of predicting the probable consequences of planned industrialization undertaken simultaneously in numerous countries. There are too many unknowns even to guess at the order of development. It is useful, however, to observe what some of these unknowns are.

We have suggested that industrialization of backward areas could proceed either on the hope of improving real incomes through participation in world trade, or alternatively, industrialization might be pushed with the objective of stabilizing domestic employment and national income, even, if necessary, at a lower level. Industrialization on the first pattern would tend towards the progressive specialization of production and the growth of international trade. Industrialization for stability would almost certainly lead in the opposite direction on both counts.²⁵

It would be naive, of course, to assume that after the war either plan of industrialization will be followed by industrializing countries with unswerving fidelity. But as the schemes unfold they will probably be a facsimile of one plan or the other. Though industrialization for stability seems the more probable course at present, it is too early to tell which will ultimately dominate.

1. *Relation between Reconstruction and Industrialization of Underdeveloped Areas*

Industrialization of underdeveloped areas and economic reconstruction are more closely interrelated than might at first appear. For the pattern of industrialization will be at least partially molded by the form that economic reconstruction assumes.

After 1918 the economic organization of world trade and production never reassumed the pattern it displayed in 1914. Some efforts to push it in that direction occurred spasmodically up to

²⁵ At least this would be true in the long run. While industrialization was in progress world trade might show an upward trend, especially if industrialization were assisted by foreign lending.

1929 or even 1931. But after 1933 the main drift in world trade was towards bilateralism, self-sufficiency, and a submission to military requirements.

World War II has been in session more than five years at present writing. The economic changes since 1939 far exceed those that transpired between 1914 and 1918. In the British dominions and India industrialization has proceeded apace under the scourge of war necessity. The severance of customary trade channels and the American program of hemispheric defense, have also caused much industrialization since 1939. These changes are likely to be permanent. Europe, on the other hand, has been forced to resort to new methods of production, to new materials, and to synthetics as stock-piles dwindled and overseas imports fell to a trickle. Military strategy also seems to have imposed some migration of industry. The undermaintenance of productive capacity and the accumulation of physical destruction in Europe will add their complications to the changes already mentioned.

The longer term consequences of these changes in Europe and the rest of the world since 1939 are that reconstruction cannot be simply a matter of re-establishing the economic organization of 1939. Reconstruction cannot disregard what has occurred during the war. The avenues by which Europe traded with the rest of the world to provide its relatively high standard of living will be at least partially blocked by the industrial and technological changes that will be a residue from the war. It will not be a case of restoring a complicated network that once existed, but of trying to devise a partially new system that can integrate with the developments already achieved in other parts of the world. And the changes already achieved are only part of the problem; there are others in prospect, such as deliberate industrialization schemes, which must also be taken into account. In other words, perhaps economic reconstruction also needs a scheme of planned industrial and economic development which somehow dovetails with the permanent changes imposed by the war and the proposed schemes for the industrialization of "underdeveloped" areas.

What adjustment to long term changes of this kind is envisaged in the plans for economic reconstruction is not self-evident. Will reconstruction (in itself partly a scheme for industrialization) be pushed towards the objective of international specialization or to-

wards stability and even national self-sufficiency? Of course there are no answers to such questions now. Yet it is obvious that the consequences of planned economic development *outside* of industrial Europe and the United States will be partially determined by the economic objectives that guide reconstruction. It is conceivable that the strong trend towards national economic self-sufficiency that dominated economic policy after 1929 may reassert itself in reconstruction. The reasons may be different from those of 1933-1939 of course. Instead of military might and fear as the propelling motive it may be full employment policy and technical change that will block any genuine international specialization and derivative trade.²⁶ At least it is not axiomatic that economic reconstruction will be dominated throughout by the objective of maximizing participation in world trade. Consequently the pattern and effects of planned economic development in the world's low income areas are not now discernible.

Thus it is apparent that economic reconstruction in the present war areas and planned economic development in low income countries are not two wholly separate problems. They are logically and historically interrelated, and, to a degree, interdependent. If reconstruction in the industrial sphere should be draped over a framework of beneficent autarchy in economic matters, then the industrialization of backward areas will almost certainly turn towards self-sufficiency also. The legacy of economic changes bequeathed by the war seems to push in this direction. But possibly longer term considerations will influence economic policy in and between nations in this respect more than now appears on the surface.

2. *Relevance of Political Factors*

This essay cannot explore political issues and complications. But one must note in passing that economic reconstruction and planned industrial development after the war are unlikely to be

²⁶ For an interesting argument that technical developments are tending to make for a long term shrinkage in international trade see Lowe, Adolph, "The Trend in World Economics," *American Journal of Economics and Sociology*, Vol. III, pp. 419-433. It seems to the writer, however, that the technical argument is not conclusive in itself. Even though synthetics and other developments may make industrialism nearly an ubiquitous possibility international trade could still assume large proportions if the nations thought it worth its cost.

unaffected by political realities. Wherever one turns—France, Central Europe, the Balkans, the Orient—the political uncertainties are baffling. And the progress of the war on the several fronts seems not to brush away the fog.²⁷ It sometimes seems as if international policies were becoming progressively more murky.

Yet however annoying these political uncertainties may be, they are inescapable. Fortunately in economic affairs there is often a hard understructure which limits the range of feasible choice in political solutions to economic problems. In a measure this generalization applies to economic reconstruction and deliberate industrialization after the war.

IV. SUMMARY

IT WOULD be presumptuous to pretend that the foregoing comments on the economic aspects of industrialization had done more than brush the surface of that complex subject. But perhaps enough has been suggested to fit the problem into the larger framework of postwar international investment. In this setting it seems to the writer that there are two or three cautions that are in danger of being disregarded in the laudable enthusiasm for a better postwar world. In the first place there seems to be too easy an assumption that deliberate industrialization after the war will raise real incomes and increase world trade. But we have tried to show that only industrialization on one of two possible broad patterns would necessarily promote international specialization and trade. And that there was no guarantee that deliberate industrialization would inevitably take this form. We also sought to emphasize the close interconnection between the answer to this question and the motives dominating economic reconstruction after the war.

If industrialization and economic development in backward areas are to be financed in part by foreign lending the pattern of development is not a minor issue. For industrialization looking to-

²⁷ When one reflects upon it, it is astounding the degree to which the world's future seems to hinge upon perhaps a dozen persons. The death of the key figure in the United States, Great Britain, Russia, Germany, or China could conceivably produce changes of enormous consequence that are scarcely discernible in advance at all. Such a key position for a few individuals seems to be almost unique in the world's history. [The news of the untimely death of President Roosevelt comes as I read the proof sheets.]

wards national economic self-sufficiency, and welfare investments that increase real consumption, are not designed to swell exports from the borrowing countries. But exports of goods and services are the means of meeting interest and principal charges on sums borrowed abroad. Hence there must be some connection between the character of the investments undertaken in an industrialization or development program and the foreign loan obligations assumed.

In point of fact this connection is more complicated than one might suppose. Its exploration both in connection with industrialization and reconstruction is the task of the next chapter.

6 FOREIGN BORROWING IN RELATION TO RECON- STRUCTION AND INDUS- TRIAL DEVELOPMENT

THE previous chapters have described some of the relationships between real capital resources and the task of rehabilitation and industrialization. The main emphasis was upon the "real" changes involved, the alternative patterns that these might assume, and what the latter might signify for the countries directly concerned and the world at large.

The financial aspects of rehabilitation, industrialization, and development schemes were not considered. In particular, no analysis was made of the relation between the form of increased capital intensity and the manner and degree to which these are "financed" by foreign borrowings. These are the topics of the present chapter. We first examine the relationship between foreign borrowings and total capital investment within the country rehabilitating or industrializing. We next consider the different effects, in relation to the balance of payments, of various types of investment projects. Finally, we try to point out certain inherent problems that will require careful handling if exchange difficulties are not to throw the whole program out of gear.

I. DOMESTIC INVESTMENT AND FOREIGN BORROWING

OUR discussion of real capital in Chapters II and III and of rehabilitation and industrialization in Chapters IV and V have

shown that a large part of real capital consists of items that can only be produced with domestic economic resources. Machinery can be imported but buildings have to be fabricated on the spot. Nevertheless some things will have to come from abroad where projects of capital intensification are undertaken. And these may be paid for concurrently by an excess of exports over "necessary" imports of other kinds, or they may be acquired through net borrowing from abroad. Borrowing abroad allows a net increment in a country's imports. But this relationship between domestic capital investment and the demand for imported goods will bear further analysis.¹

1. *Investment Activity and the Foreign Exchange Drain*

Let us assume that a country is determined to increase its real capital either for industrial development or rehabilitation and that the authorities realize that in the main they must use domestic resources. Let us assume further that they are willing to float loans at home to "finance" the capital development.² To make the case concrete let us suppose that a large hydroelectric power scheme is the central development to be undertaken. What will be the sequence of events?

200/ If unemployment prevails in the country the increased government spending to construct the power project must appear as increased income to people within the country.³ Unemployment will decline. Incomes will rise. The power project will begin to take on reality. Rising employment and incomes will mean increased money expenditures in the economy as a whole. People buy more ultimate consumption goods. Merchants need to replenish their stocks. Factories expand their production. "The State of trade"

¹ The present section owes much to the brilliant article by Polak, J. J., "Balance of Payments Problems of Countries Reconstructing with the Help of Foreign Loans," *Quarterly Journal of Economics*, February, 1943, pp. 208-240.

² We assume here that the projects for capital augmentation are undertaken by public authority. The sequence of development would be the same if the projects were initiated by private enterprise from borrowings within the country. We use the assumption of public borrowings because it simplifies the presentation. Nothing of importance depends upon it in the present connection.

³ We assume here a net increase in investment. That is, the government project is not in place of private investment of an equal amount nor does it inhibit private investment of an equal expenditure.

improves all along the line. There may even be some price increases distributed unevenly over the economy.

But before long difficulties may appear. The boom in trade will mean an increased demand for goods from abroad. People want more goods in general, and some of these goods are foreign made. Factories will be producing more: they will need more raw materials, supplies, and machine parts. Some of these will have to come from abroad. Moreover, some domestic goods, which were both exported and consumed at home, will be taken in larger quantities by the country's nationals. The net effect will be for imports to rise relative to exports and for a shortage of foreign exchange to develop. And insofar as prices rise at home relative to those abroad these tendencies will be accentuated still further.⁴

It is necessary to emphasize *why* the exchange difficulties appear. They appear because the rising incomes and employment spill over in an increased demand for foreign goods.⁵ The government-sponsored investment in the hydroelectric project forces up incomes, and the higher incomes mean an increased demand for goods in general, including goods from abroad. Hence it is the rise in income, consequent upon increased investment, that causes trouble if no precautions are taken beforehand. Greater investment, higher incomes, more imports, shortage of foreign exchange is the causal sequence.⁶

While it is the greater investment that causes foreign exchange difficulties it is well to note that the drain on the foreign exchange is likely to be partly direct and partly circuitous. The investment

⁴ In what follows we use the phrase "exchange difficulties" to cover all problems taking the form of a shortage of balances abroad. These are always being currently depleted and restored and it is the accretion of foreign exchange from exports and borrowing in relation to its depletion because of imports and debt payments (interest, service charges, etc.) that determines the "balance" at any point in time.

⁵ If the investment project is undertaken when substantially full employment prevails the sequence works itself out through price changes in which the hydro project draws laborers and supplies from other uses by competitive bidding. A price inflation would ensue and the process of development leading to troubles with the foreign balance would follow the familiar lines of classical theory.

⁶ As Polak has shown (see note 1, p. 96), the rate of interest on the foreign borrowings makes surprisingly little difference in the magnitude of the exchange problem.

projects themselves will require (perhaps) special machinery from abroad. These expenditures are an obvious and direct drain on foreign exchange which has to be provided for. The indirect drain on the foreign exchange balance arises from the fact that as incomes rise some of the increased income goes for imported goods. This "circuitous" drain is not all felt at once and it will often be difficult to predict in advance just what specific goods will be imported. It will depend upon buyers' tastes and relative prices of domestic and foreign goods. But consumption goods in the quasi-luxury class are a strong possibility.

Foreign borrowing is one means of providing for the direct and indirect drain upon foreign exchange that is almost certain to occur when investment increases. If the domestic investment is wholly or partially initiated by a foreign loan the country, from one point of view, provides for this contingency in advance. The necessity for so doing is the more obvious, of course, the more nearly the domestic investment project (or boom) is technically dependent upon goods from abroad. Here the direct connection between the investment project and increased purchases abroad is apparent from the first. And for other than highly developed industrial countries domestic investment projects are likely to be highly dependent technically upon other countries. The consequence is that a small country which is trying to industrialize may well hesitate to push an investment boom through credit expansion at home because a large direct drain on its foreign exchange balance is sure to develop.

The circuitous drain on foreign exchange, already mentioned, is no less important than the direct drain. Indeed it may be the more dangerous of the two because its workings are reasonably certain but less obvious in advance. An economically sophisticated government might desire a loan even though its investment project did not *directly* require *any* imported goods whatever. For it would realize that part of the rising national money income would be directed towards the purchase of foreign goods and would therefore draw down the country's foreign exchange balances.

A country in which investment is proceeding at a more rapid rate than the rest of the world will encounter a rising demand for

imports.⁷ Given the domestic multiplier, the demand for imports will be related, on the one hand, to the aggregate investment undertaken and, on the other, to the relationship between increments in national income and the proportion thereof expended for foreign goods. Given the "marginal propensity to import" the total increased demand for imports will depend upon how much investment is undertaken.⁸ For any given amount of investment more imports will be demanded the greater the preference (for whatever reason) people have for foreign goods. Hence the important relationship is not how much of the investment is financed at home and how much abroad. Rather it is the relationship between total investment, total foreign borrowings, and the marginal propensity to import.

The amount that needs to be borrowed abroad to carry through the investment project can be minimized by appropriate trade restrictions. For while machinery and supplies—such as dynamos and generators for our hydroelectric project—are indispensable to the success of the investment project the same cannot be said of many consumption goods that will almost certainly be imported if people simply spend their incomes as they please. In other words, the direct drain on the foreign balance because investment is being increased is a "necessary" expenditure. The "circuitous" drain adds nothing to the completion of the investment project. And to that extent it is optional whether the State allows it to develop or not. If the industrializing country is determined to minimize its foreign borrowings it can do so in part by not allowing consumption goods to be imported at all. Scarce foreign exchange is reserved for important uses only. Russia is of course the outstanding instance in modern times of a country following such a policy. If she needed

⁷ Insofar as the country is not increasing its investment more rapidly than other countries, no particular exchange difficulties need arise. For the increased imports are likely to be matched by increased exports. Indeed a country planning to time its industrialization so as to minimize exchange difficulties would do well to lag a little behind the upward movement of investment and income in the rest of the world. For in that case it would always have a cushion of additional foreign exchange on which to rest its program.

⁸ The "marginal propensity to import" is simply the ratio of the increment in imports to the increment in income in the economy as a whole. It obviously will not be constant for all levels of income for any one country. And it will certainly vary widely between countries. In the U.S.A., for example, it would be comparatively low; in Bermuda certainly quite high.

machinery she imported it. But silk stockings and trips abroad were not available even though people might have had money to pay for them. Hence how much a country needs to borrow to industrialize depends partly upon how rigidly it wants to restrict freedom of consumers' choice.

To recapitulate. The drain on the foreign balance depends upon how much investment is undertaken *in toto* and the marginal propensity to import. The drain on the foreign exchange balance determines how much the country will have to borrow abroad or increase its exports. But the drain can be restricted, and hence the borrowings minimized by eliminating the circuitous drain that in the absence of restraints will go largely for dispensable imports. Finally, a country that was determined to place itself on iron rations might carry through sizable investment projects without any foreign borrowing at all. And, within fairly broad limits, this statement stands even though some machinery or other such goods had to be obtained from abroad. They could be paid for by current exports.

21. The foregoing discussion has been general in character and applies almost equally to economic reconstruction projects or to industrialization and development schemes for low-income areas. The main differences between them will lie in the relation between increments in income and increments in imports and in the nature of the projects undertaken. But from the point of view of what happens economically and the causal sequences involved, there are more similarities than differences.

2. *Sequence of Developments Occasioning Foreign Exchange Difficulties*

The above discussion of the relationship between investment and imports and the drain upon foreign exchange holdings was in a measure unrealistic. More particularly our presentation ran in terms of one investment project and (ostensibly) one borrowing operation abroad. It was episodic. A more accurate formulation would be in terms of a "stream" of investment and a "stream" of lending. A series (stream) of investments and borrowings over time is indeed what is likely to occur after the war.

To recast the previous analysis in terms more descriptive of flow

phenomena appears to be unnecessary.⁹ But a modification or two will avoid wrong inferences.

The main difference in the results of a sequence analysis cast in flow terms is that the foreign exchange difficulties will not appear so soon. For a time new borrowings abroad will be more than adequate to meet any direct or circuitous foreign exchange drain that will occur. The drain will only be some fraction of the amount of new investment undertaken in any case. If new borrowings are continually being undertaken, the drain on the foreign exchange balance will be regularly replenished and no difficulties need arise. Although more draughts are taken from the bucket, the water level need not fall and may even rise. But unless fresh loans are to be continually granted, trouble is bound to arise sooner or later. The drain will continue to grow while the replenishments at some point begin to decline and perhaps ultimately cease altogether.

One other concession to realism is also necessary. We have spoken usually as if the foreign borrowing occurred simultaneously with the initiation of the investment project. In fact this may not be the way in which events occur. The investment projects may be launched and the necessary imports purchased on short-term credit. Other imports are also bought on short-term credit. It will then be discovered that the country has a foreign-exchange problem. Negotiations with bankers will be opened and the country will "fund" its short-term indebtedness. Only then is there any formal borrowing such as was implied in our discussion.¹⁰ But the essence is the same. The external form is not of crucial importance.

II. TYPES OF INVESTMENT AND EXCHANGE DIFFICULTIES

WE HAVE seen in Section I that a country may get into exchange difficulties if the total investment it undertakes is too large relative to the amount it borrowed abroad to care for the direct and in-

⁹ One could think of our case of the initial investment in the hydroelectric project as a series of small investments over time and transpose the discussion easily enough into flow analysis.

¹⁰ Such a sequence is commonplace in private finance. See Dewing, A. S., *Financial Policy of Corporations*, 4th ed., New York, 1941, pp. 1083-5.

direct drain upon its foreign balance. We have now to consider whether the particular form the new investments assume as capital goods at all affects the country's ability to meet its foreign obligations. In other words, after the capital goods are turning out products and services does it make any difference what kind of goods these are? Are all goods equally satisfactory from the point of view of servicing the foreign loan?¹¹ While a negative answer seems obvious the question is yet worth examining.

1. *Home Investment and the Drain on the Foreign Exchange Balance*

Various classifications of a country's industries in relation to international trade and finance have been developed from time to time. Mr. Harrod's A, B, and C goods classification is useful but not particularly pertinent in the present context.¹² Our interests center upon the effect of establishing different industries upon the foreign exchange balance rather than upon the factors determining national price levels. Here a threefold distinction of Polak's seems appropriate. Type I investments are those which contribute to the foreign exchange balance. Type II are neutral in this regard. And Type III are those investments which diminish the foreign balance.¹³ The effect upon the foreign balance is of course the net effect of the particular industry (*via* investment) upon exports and imports of the particular country.

¹¹ For the sake of simplicity we assume that "service charges" on the loan include some regular repayment of principal—a sort of F.H.A. amortization scheme.

¹² Cf. Harrod, R. F., *International Economics*, Rev. Ed., London, 1939, pp. 60-63 and *passim*. "A" goods are those having an international market with standard grades with almost no product differentiation. "B" goods are specialties with considerable product variation but still moving in international trade. "C" goods cannot enter into international trade at all; they are domestic goods entirely. Some goods are combinations, of course.

¹³ Cf. Polak, *op. cit.*, pp. 216-217, where the three types are defined specifically as follows:

"Type I 'Goods [including services] additionally sold for export or sold on the domestic market in place of goods previously imported.'

"Type II 'Goods sold on the home market replacing similar goods previously sold on the home market, and goods sold abroad replacing similar goods previously sold abroad.'

"Type III 'Goods sold on the home market in addition to those previously sold, and in excess of the increase in demand owing to the rise in incomes.'"

Let us emphasize that we are now concerned with the contribution different types of industries (and hence investments) may be expected to make to the foreign balance once they have been established. The transitional effects are not our concern here.¹⁴

Type I investments call into existence industries which either take the place of goods previously imported from abroad—such as consumers' goods in apparel, processed foods, etc.—or make goods for export in excess of what was previously sold abroad. In either case the completion of the investment and the subsequent operation of the industry increases the foreign exchange balance. If Canada, having established more packing plants, exports dressed meat and hides to the United States instead of live animals, then presumably its foreign-exchange position is strengthened. And the reader can think of other examples of the same type of investment. Indeed much of the investment on private account in times past has been of this sort.

Type II investments are mainly those made in response to technical improvements in production methods or because already installed capital equipment is worn out. Many investments of this sort are likely to occur in countries where capital has been under-maintained during the war and where known techniques are far ahead of established methods. Such investments may occur either in domestic industries or in the export industries. Their contribution to the foreign balance is indeterminate since the new products sold abroad or consumed at home may be cheaper or more expensive than those they replace. It seems best to assume that such investments are neutral in terms of their effect upon the foreign balance.¹⁵

¹⁴ We may note in passing, however, that the transitional effects of all three types upon the foreign balance are essentially the same. They each create an indirect drain because they increase incomes. And the direct drain need not necessarily be any different. In view of the type of industries likely to be in Type III, however, Type III investments perhaps are likely to occasion a smaller direct drain than, say, Type I. In Type III investments—public service industries, development projects, etc.—perhaps more of the total assets will have to be constructed on the spot.

¹⁵ A serious problem will arise in this connection for some European countries after the war. Prior to 1939 they financed their imports of raw materials and food by exports of manufactured goods. But the war has cut off their normal export markets. Meanwhile in these foreign markets domestic manufactures have grown up and when the war ends the demand for imported goods (of certain kinds) will be notably less and often non-existent. Consequently it

Type III investments are those which add nothing to the foreign balance; at least they add nothing directly.¹⁶ These are the industries whose products by their very nature are not exportable. Perhaps as a class they are "service industries" rather than industries yielding a physical product. Tramways, railroads, irrigation projects, harbor developments, flood control schemes, water supply, ice plants, and public utilities generally are one type. Another type, however, is slum clearance, health measures, and housing projects. The latter might perhaps be called "welfare" investments. At least the former are more nearly "productive" in the traditional sense and may be conveniently so labeled.

While Type III productive investments may add nothing *directly* to the available foreign balance, their indirect contribution may be substantial.¹⁷ No one familiar with American economic history would deny the enormous indirect influence of the canals and railroads in making exports possible. And the history of other countries tells the same story. Similarly, making power available will often be the prerequisite to the development of an important export industry. Irrigation projects may increase agricultural production and hence contribute to the foreign balance. Thus, Type III productive investments may indirectly enhance the foreign balance by enhancing the yield in other industries. An example would be an oil pipeline which allowed oil from wells in the interior to be exported.

Type III "welfare" investments either add nothing to the foreign balance or their indirect contribution is so remote that it would

may be folly to attempt to "restore" such export industries in certain parts of Europe even though they have been destroyed or virtually reduced to junk through undermaintenance. There will be shrunken markets abroad for their output. By the same token imports, in the absence of exports, cannot be as large as before. The European standard of living may be permanently dropped to a lower level as a consequence. Europe may not be able to export as much of its skilled labor in the form of manufactured goods simply because during the war the rest of the world has been (partially) able to supply its own needs. In the British Dominions, Latin America, and the Near East these developments have been notable. Hence to try to "reconstruct" Europe on the old pattern of exports may be an error of the first magnitude.

¹⁶ Type III investments are almost coextensive with Mr. Harrod's "C" goods industries.

¹⁷ It seems to the writer that Polak underestimates the importance of the indirect effects of Type III productive investments upon the foreign balance. Cf. *op. cit.*, p. 219.

be hazardous to rely upon it. While one might argue that better housing would increase the productivity of the workers and hence available exports, a realistic view would regard the causal chain here as thin and tenuous.

Hence while some Type III productive investments may indirectly contribute to the foreign balance, the welfare Type III investments cannot be expected to add anything directly or indirectly to the foreign exchange made available. The net effect will obviously depend upon the division of the total between productive and welfare Type III investments.¹⁸

2. *Exportable Goods and Home Investment*

Let us now tie together the operational effects in terms of the foreign balance of Investments I, II, and III.

After the investments have been completed and the projects are in operation all three types yield income to the amount of the value of their product. This income will consist of the distributive shares wages, interest, rent, and profits. Their expenditure by the recipients, however, will partially result in an increased demand for foreign goods in an amount determined by the marginal propensity import at that level of income. Thus it is that the operation of these new industries will tend to increase imports because the income receivers will spend their incomes partly upon imported goods. But what is the contribution of the operation of these different industries to the foreign exchange balance? The answer seems reasonably clear. Type I industries either increase exports or diminish imports so that they make for an increase in the foreign balance. Type II is indeterminate so that we have to set its effect at zero. Type III yields no product salable abroad. Hence only Type I in its operations offsets the increased imports induced by the greater income it generates. The operations of Type III diminish the foreign balance: Type II is indeterminate.

If the foregoing analysis is correct it follows that a country which is rehabilitating or deliberately industrializing can get into difficulty by having too large a proportion of Type III investments relative

¹⁸ It might have been better to include those Type III productive investments which indirectly raise exports in Type I. But after consideration it seems less confusing to present the analysis as above.

to Type I. For insufficient new exports (or diminished imports) would be developed out of the projects to pay for the larger imports that the higher level of income (output) in the economy would induce. Conversely if investment were heavily concentrated in projects of Type I no foreign exchange difficulties would probably emerge. For while the larger income generates larger imports the output is of a kind that contributes to the foreign balance in an amount equal to its value. Since the marginal propensity to import will certainly be less than unity, a net gain in the foreign balance is almost certain to emerge. No foreign exchange difficulties arise.

It is of the utmost importance to emphasize that the analysis in the previous paragraphs is independent of whether the country has borrowed abroad or not. If it has, of course additional claims on the foreign balance are necessarily established by the service costs on the debt. But a country which received a gift from abroad or one which did not borrow at all could alike encounter foreign exchange difficulties after the investment program had been completed if too large a fraction of the total investments were of Type III.¹⁹

3. Capital Investment and Capital Intensity

In Chapter II we noted that there were enormous differences between industries in their degree of "capital intensity": the ratio of total capital investment to the annual value of product. These differences have a pertinence in the present discussion of foreign exchange difficulties arising out of reconstruction or industrial development projects.

We have observed that exchange difficulties will be less likely to emerge if the investment program as a whole contains a preponderance of Type I investments. But within this category there are enormous differences between industries in the degree of capital intensity. Referring to our earlier tables (Tables V and VI) we

¹⁹ The discussion in the present section is admittedly quite abstract and it may not be entirely clear upon a first reading. Yet in the writer's judgment the points made are extremely important for the problems at hand and should not be dismissed lightly as "too theoretical." The obligation which the discussion owes to Polak's article is great indeed.

note, insofar as the Pennsylvania figures are indicative, that the capital investment per wage earner in the ice cream industry is almost twenty times that in women's clothing. In general, consumers' goods are less capital intensive than producers' goods such as iron and steel products and cement. The consequence is that for a given investment in Type I industries more exports (or reduced imports) will be achieved by concentrating upon industries with a low capital intensity. Light consumers' goods—textiles, furniture, leather products, some food processing, etc.—yield a large annual contribution to the foreign exchange balance in relation to the investment committed to them. By contrast the contribution of a steel industry or an electrical manufacturing industry to the foreign balance is small in relation to the capital investment required to establish it. Consequently a country rehabilitating or industrializing would do well to concentrate initially upon Type I investments where the degree of capital intensity is relatively low.

Yet after the war there would appear to be genuine obstacles to concentrating upon Type I investments where the degree of capital intensity is low. Possibly strong reasons exist for expecting almost the reverse to occur on the whole.

The reconstruction of the war-damaged areas will, as we have indicated earlier, be a reconstruction of durable assets—buildings, utility plants, harbors, railways, docks, etc. These will have to be the things reconstructed because these are the things that will have been chiefly destroyed or allowed to fall into disrepair. So much real capital depletion will be found to consist of the destruction and undermaintenance items of this kind. But capital goods of this type are highly intensive: the annual yield is small in relation to their original cost. Docks and harbors have an almost indefinite usefulness if adequately maintained. Yet to reconstruct them requires a heavy investment. From the point of view assumed in the previous sections of the present chapter they are largely Type III investments which add nothing directly to the foreign balance. And they are capital intensive besides. Consequently the dangers of foreign-exchange difficulties are doubly great. And where there is foreign borrowing as well to finance these developments the exchange difficulties become even more severe.

Industrialization and development schemes for low-income areas may well assume a pattern of similar economic implications. While

Type I industries with a low capital intensity appear to be the appropriate object of investment from the point of view of the foreign balance it is at least doubtful if this will be the criterion for fixing the priority of investments undertaken. Will not the more likely criterion be security and public welfare in a more direct sense, i.e., ignoring the difficulties of a tardily adjusted foreign balance? Type III welfare investments may well bulk large in the total scheme for capital intensification. These are capital intensive industries and they contribute nothing to the foreign balance. And even assuming an official willingness to bend investment in the direction of augmenting exports and so avoiding exchange difficulties, will public opinion, in the countries likely to be involved, permit the consistent application of an austere policy at all or for more than a short period? Clearly one cannot give definitive answers to questions of this sort. But certainly it is far from self-evident that investment schemes to industrialize or develop low-income areas will automatically assume a form and direction calculated to minimize the danger of a chronic unbalance in the foreign-exchange account.

7

CONCLUDING AND SUMMARY REMARKS ON RECONSTRUCTION AND ECONOMIC DEVELOPMENT

EVERYONE takes it as axiomatic that the postwar period will require the international migration of capital on a large scale. And there seems to be general agreement that the purposes of such lending and borrowing will be economic reconstruction and economic development. Starting from this assumption the subsequent discussion tends to revolve around the question of where and how much and by whom and on what terms. Yet if our analysis in the previous chapters has any validity it is doubtful if the question should be handled quite so glibly. *2nd p.*

1. If one measures the "need" for capital for reconstruction and economic development by the gap between real income levels in the highly developed industrialized countries and the "backward areas" one can easily conclude that there are unending avenues for foreign investment. The gulf is so great that one can easily imagine that centuries of investment activity will only partially close it. Similarly if one measures investment opportunities the number of projects that are physically possible to undertake in various parts of the world then again the opportunities seem to be nearly limitless.

But interesting as such speculations and flights of fancy may be in themselves they have almost nothing to do with the "need" for capital investment at home or abroad or the degree to which such investment might be financed by foreign borrowing.¹

¹ "It is easy to show that the standard of living in China is much lower than ours, and that it would take billions of dollars to finance an industrial development in China sufficient to give a radio and an automobile to every Chinese family; or to show that it would cost some hundreds of millions of dollars to develop the Brazilian steel industry; or to show that the building of a railroad network in Ecuador would require more capital than the total American investment now in Ecuador. But all this proves nothing as to the need for foreign investment in those countries. . . ." Fetter, Frank W., "The

At the very least one would suppose that only those capital investments (regardless of how they are financed) are worth undertaking which promise to provide a positive net yield if completed and placed in operation. In more concrete terms this means that when the project is finished it earns enough in gross income to cover the direct costs of its operation, to maintain the fixed capital assets by appropriate depreciation charges, and something more besides. The "something more" expressed as a percentage of the capital cost of the project would be the yield rate on the investment.

For any project, or groups of projects, financed in part or in whole by borrowing abroad at a rate of interest greater than zero the prospective yield rate on the investment would have to be at least as large as the rate at which the funds were borrowed, with, doubtless, an added margin of safety. Moreover, there is the "transfer problem" which we will temporarily disregard.

If investment "opportunities" and the "need" for foreign lending are viewed in this light (rather than by comparing per-capita incomes or totaling up the countless projects it would be physically possible to undertake) it is at once evident that investment and foreign borrowing after the war for reconstruction and economic development are subject to some definable limitations.

2. Our analysis of the composition of real capital resources revealed the very high degree to which it was composed of items that were fixed and immovable. Moreover, this generalization applies almost equally to industrial or productive capital and to consumers' or "comfort" capital. An alternative expression of the same fact is that a very high proportion of total real capital consists of structures and buildings and the results of construction activity in other forms.

The relevance of this immobility characteristic of so much real capital to reconstruction and economic development programs is that these require mostly home resources for their execution. Reconstruction endeavors to restore real capital resources which the war will have seriously depleted. Economic development aims to raise real incomes by augmenting the stock of real capital resources within the economy. But in each case increasing real capital re-

Need for Postwar Foreign Lending," *American Economic Review*, March, 1943, Supplement, pp. 342-343.

sources implies the use of domestic productive resources simply because so much real capital is by its very nature fixed and immovable. No one has yet devised a means of exporting a sewage network, a railroad, a harbor development, or an irrigation system. And probably no one ever will.

It follows easily as a simple deduction from the foregoing that the assistance which foreign countries can render in reconstruction and economic development must be largely indirect. Foreign assistance in the form of loans allows domestic resources to be utilized more effectively, to be used to a greater extent, or in a different manner than would be possible without them.

3. For any given amount of reconstruction and economic development as measured by aggregate capital investment in its own currency that a country wishes to undertake there is usually the opportunity to carry it through with varying degrees of assistance from abroad. At one extreme there is the case of virtually no assistance from abroad. The remarkable industrialization of Russia in the last twenty years nearly coincides with this theoretical pattern. But the Russian case is almost a unique instance. Examples of countries which have developed in part with the help of foreign borrowing are distinctly more numerous.

The total capital investment that a country elects to carry through for reconstruction or economic development can of course be achieved at different time rates. That is to say, the country might have a "five-year plan" or a twenty-five-year plan. One advantage of foreign borrowing is that it shortens the time period required to effectuate the investment program. By using food, supplies, and materials that are available to it because it has borrowed, it is relieved of the alternative necessity of paying currently for these imports with its exports. In a crude sense one can say that by borrowing abroad the country is enabled to consume beyond its current income and so devote more of its productive resources to investment projects which, as we have seen, mostly have to be undertaken with its own resources on the spot.

If both the total capital investment and the time interval over which it is to be achieved are given, then the amount of foreign borrowing is a measure of the degree to which the country chooses (either deliberately or by neglect) to restrict consumption in favor of saving in order to achieve the desired reconstruction or economic

development. In the Russian case it was the deliberate policy to restrict consumption to a Spartan subsistence and thus to avoid foreign borrowing almost altogether. Such rigorous measures may be too harsh, or too inhuman, or too authoritarian, or otherwise too objectionable to be applied the world over. Yet at the same time it should never be overlooked that, from the borrower's point of view, foreign borrowing for reconstruction or economic development—given both the size and time speed of the investment program—is a means of avoiding some belt-tightening now in favor of some belt-tightening in the future. And if the stomach is expected to be better nourished at the later date, that may be the wiser policy.

4. At the risk of belaboring the obvious it is worth emphasizing that the degree to which foreign borrowing is necessary or appropriate depends upon the level of domestic savings, and that within limits savings are subject to deliberate manipulation.

For all but those countries existing at a bare minimum of subsistence in the stricter Malthusian sense the volume of savings as a proportion of national income seems to depend upon several factors that are far from immutable. Among these the social standards of the country rank high on the list. The social standards of the country may dictate a high level of conspicuous consumption rather than saving and productive investment. Those who are relatively well-to-do devote themselves to consuming "services" at a rate that parallels (or exceeds) their incomes instead of merely living well and devoting the remainder to productive investment. The basis of these customs in historical tradition running back to feudal times we cannot explore here. Yet it is worth observing that nowadays they are both anachronistic and a concrete denial of the alleged impossibility of financing any domestic economic development out of domestic savings.² As a recent writer has cogently remarked:³

In a number of industrially backward countries the principal obstacle to domestic investment is not the absence of local funds that might be in-

² It would be interesting to explore the relationship between puritanism, domestic capital accumulation, and economic development in North Western Europe, North America, and the British Dominions in contrast to the line of development elsewhere. Max Weber, R. H. Tawney, Werner Sombart, and others have of course dealt with the problem in a broad way. But much remains to be done for there is much that is unexplained in a satisfactory manner.

³ Fetter, *op. cit.*, p. 343.

vested but a scale of social values, combined with political instability, which causes the wealthy groups within the country to spend their incomes on foreign travel or on foreign or domestic luxuries. In more than one Latin-American country that is reputedly "short of capital," the sums that have been spent in Paris in the last half century by wealthy natives would have endowed the country with a modern transportation system and a well-equipped industrial plant. The same situation is found in some of the countries of the Orient.

Hence it is illogical to assume that foreign borrowing is indispensable to domestic economic development unless one firmly believes that such social standards should be preserved, even underwritten indeed, by the productive effort of those in other countries.

It is not necessary here to examine the means and techniques by which domestic savings can be raised in order to finance domestic economic development or even certain types of economic reconstruction. Yet the very conduct of the war itself on the financial side has shown that it is possible greatly to increase aggregate savings by taxation, raw material controls, specific prohibitions, and similar devices. A country that is determined to develop its potential economic resources for the general good has a sizable arsenal of weapons of proven effectiveness for increasing domestic savings.

5. The amount to be borrowed abroad for a given total of domestic investment is not necessarily a fixed sum as we have just seen. But where borrowing abroad does occur it is important to remember that certain cautions have to be observed if default on those borrowings is to be avoided.

In Chapter VI we have shown that the relevant considerations in shaping the balance of payments problem are the aggregate volume of investment in the borrowing country and the particular form of the investment projects. It is unnecessary to repeat here the argument there presented. If service charges on foreign borrowings are to be met then net exports must increase, i.e., some fraction of the investment undertaken must build up the export industries or create domestic industries that avoid the need for imports.

In current references to these balance of payments problems there seems to be a tendency to minimize their importance by assuming that for a long time the flow of new lendings will avoid the difficulties.⁴ And to be sure, so long as lenders are willing to

⁴"The opportunities for productive employment of capital equipment in the less developed parts of the world (and that is still most of the world, meas-

make fresh loans at an ascending rate no balance of payments problem need ever arise. But one wonders if it is appropriate to assume a stream of loans for economic development abroad extending, say, twenty-five years into the future. Certainly no government in any of the prospective lending countries could make any such commitment at present and, all things considered, it would no doubt be foolish to do so even were it so inclined. And, moreover, the borrowers would have to be extremely naive to take the assurance at its face value. Hence in the writer's judgment it does not suffice to assume the balance of payments problem away by postulating a stream of new loans sufficiently large to forestall its appearance.

There is an auxiliary consideration here. While the balance of payments problem is a function of the volume of investment undertaken and the particular form it assumes taken in relation to the volume of new loans one needs to keep in mind that new loans will be made for specific projects and not as a lump sum regardless of the uses to which it will be put. That is, the aggregate of new loans will be the summation of a number of individual loans for particular projects each of which is considered in relation to its merits. Because those projects promising the highest yields are likely to be undertaken first, the new commitments undertaken as time passes will tend to appear less and less attractive, so that the volume of fresh loans could be expected to taper off rather than gradually increase. Hence some care is necessary to prevent the rise of balance-of-payments problems. And this probably means that lenders will have to exercise some control over the volume and direction of investment in the borrowing countries. As J. R. Hicks has recently remarked, "It is hard to be fair in these matters; but if Imperialism is the bad side of international lending, it may also be claimed that productive lending is one of the good sides of Imperialism."⁵

6. The history of foreign lending has not been a happy record from the point of view of lenders. A full analysis of the reasons for

ured either in population or in territory) are so immense that a large flow of investment could continue for a generation or two. Repayment of old loans would be more than counterbalanced for many years by the making of new ones," Staley, E., *World Economic Development*, Montreal, 1944, pp. 46-47.

⁵ *The Social Framework*, Oxford, 1942, p. 131.

the frequent and widespread defaults cannot be essayed here. It is often said nowadays that perhaps the prime cause of these many defaults was the sudden stoppages of the flow of new loans which threw an insuperable burden upon the balance of payments of the borrowing country. Yet one wonders if this indeed has been the prime causal factor at work. Is it not possible that the process of capital accumulation with the help of foreign loans is inevitably tenuous by its very nature?

We have frequently emphasized that real capital consists very largely of immovable structures and the fruits of construction; that these have to be made with home resources; and that, in general, the best that foreign lending can achieve is to "grubstake" the undertaking. But there is no necessary guarantee that if one country grubstakes another on a sizable scale that the results of the investments will yield net exports in sufficient volume to service the loans. That depends upon the kinds of projects undertaken and their relative proportions in relation to the whole. Each undertaking is considered according to its profit possibilities and without regard to its probable effect upon the foreign balance. The net contribution to exports of particular undertakings does not enter into the reckoning of those charged with making the decisions. But the balance of payments of the borrowing country is the net result of all of them taken together. But perhaps what happens when countries pass through investment booms heavily financed by foreign borrowings is that the contributions to net exports almost inevitably tend to be too small relative to the remittances for which the country becomes obligated through its foreign borrowings. As a consequence default becomes inescapable. Moreover, the withdrawal of principal, once default has occurred, is seen to be quite impossible because the real capital is largely of an immovable sort. An island trader in the South Seas may withdraw his investment and return to the Motherland and civilization. His capital consists mostly of stock in trade. But one cannot disinvest an unprofitable railroad in the Andes however strong the urge.⁶

⁶ The same is true of much domestic investment and for exactly the same reasons. Unless the investment proves profitable, disinvestment is impossible. There is literally no way in which the unwise investments represented by certain sections of the American railroad network can be withdrawn and invested "somewhere else."

The foregoing is of course too simple to be a complete explanation. There were "bad" loans and "good" loans. There was double-dealing and full good faith.⁷ But nevertheless one wonders if there is not something in the very nature of capital accumulation with the assistance of foreign borrowing, something more fundamental, which tends to make large-scale defaults highly probable. We have suggested that this something is to be found in the fact that only a small fraction of the total investment undertaken contributes anything to the foreign balance and that, as a result, the obligations contracted for are likely to be large relative to the foreign balances that increased exports can make available. Given the nature of real capital, the general tendency seems to be to finance too large a fraction of the total investment by foreign borrowings and too little out of domestic savings. The game can continue to be played as long as new loans cloak the difficulty. But this is only another way of saying that debtors need never default as long as creditors are willing to advance them new loans to meet maturing obligations.⁸

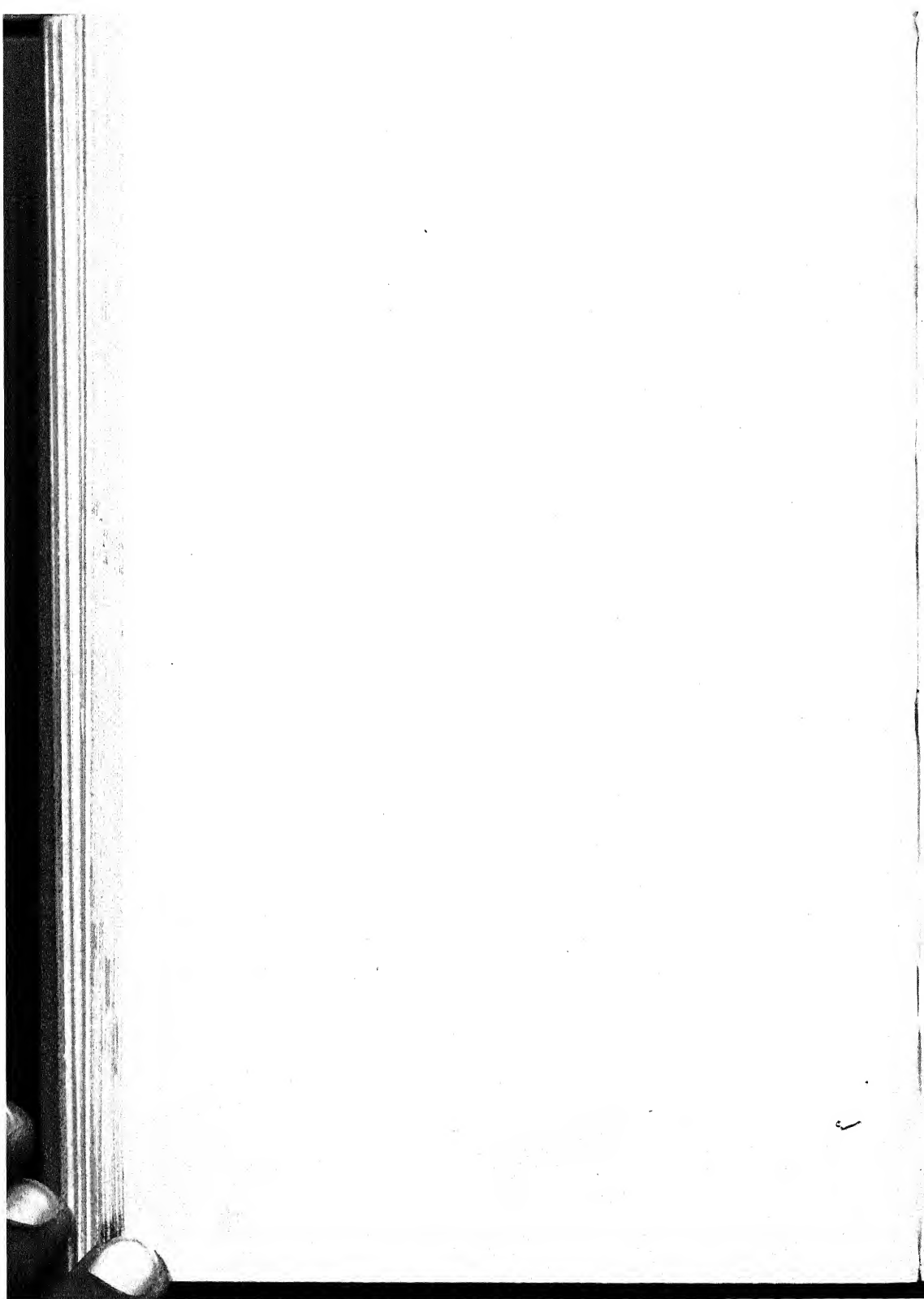
More careful analysis may temper these broad generalizations or prove them false. But they seem to warrant more searching consideration than they have so far received.

⁷ It is useful to reread Sir Arthur Salter's chapter on "Good Lending and Bad" in his *Recovery, the Second Effort*, New York, 1932.

⁸ The following passage by E. H. Carr expresses the thought with characteristic charm, "The international financial system which flourished until 1914 is often spoken of as if it had operated to the profit and advantage of everyone concerned. This system, in fact, involved a continuous flow of loans from Great Britain and certain other countries (especially France), the repayment of which was provided for when the time came by further loans; and when this cumulative process came to an end, default was the inevitable result. The advantages of the pre-1914 international financial system were paid for in the end by the British and French investors who lost their millions in South America or in Russia. The system seemed profitable to all only because those who benefited from it succeeded in unloading the cost on posterity. The process by which Germany was enabled to pay reparations between 1914 and 1930 was no novel phenomenon, but a repetition on a small and short-term scale of the process by which nineteenth-century borrower countries had regularly been enabled to pay their debts. It is not certain that the same confidence trick can be played again. If it cannot, it seems probable that those who occupy the most privileged position within any international financial system will be obliged from time to time to make deliberate sacrifices in order to make the system work; and these liabilities, like money spent on relief, must be regarded either as the discharge of a moral obligation, or an insurance premium for the maintenance of civilization." *The Conditions of Peace*, New York, p. 268.

PART TWO

THE POSITION OF THE UNITED STATES IN
RELATION TO POSTWAR FOREIGN INVEST-
MENTS



8 THE UNITED STATES IN THE WORLD ECONOMY

I. THE UNITED STATES AND FOREIGN LENDING

ALL signs seem to indicate that the United States will emerge from the present war as potentially the strongest industrial nation in the world. The war seems to have shattered most earlier conceptions of the economic capacity of the nation. Furthermore the United States will probably emerge from the war without any problem of economic reconstruction apart from the reconversion of industry from war production and some accumulated under-maintenance of real capital resources.

The potentially strong economic position of the United States at the end of the war casts it in the role of being the nation most easily in a position to assist the rest of the world in economic reconstruction and planned industrial development. That is to say, the sacrifice that the United States would have to bear in assisting the rest of the world would be smaller in relation to its resources than that which would fall on any other country. Quite apart from these ethical and humanitarian considerations, which imply the propriety of the United States aiding the less fortunate nations, it is probably almost the only nation that will be *able* to provide international assistance in the early postwar years.

We have observed in Part One some of the economic problems that will confront borrowing countries in their desire to hasten economic reconstruction and industrial development. Even if we assume that these problems are overcome in the borrowing countries there is the question of the effects of international investment upon

the lending country, where the lending country will be predominantly, if not exclusively, the United States.

We speak here of "lending" by the United States with the full realization that the United States could also greatly assist the rest of the world by outright gifts. In various forms gifts may assume large proportions after the war. But the motives that will prompt them and how large they will be in total cannot be forecast.

Among those who have touched upon the problem of international postwar investment, that is, *loans* as distinct from gifts, it seems to be agreed that they must be so arranged that the likelihood of default in interest and principal payments is kept to the minimum. The world would do well to avoid, even at a considerable cost, another debacle of defaults and repudiations, replete with recriminations and strained relationships, such as followed upon the last upswing in American foreign lending in the twenties. The necessity to respect obligations to pay where there are loan arrangements may mean that there will have to be more gifts and fewer loans in the total of international capital movements. Regardless of the proportion between gifts and loans, what transfers are made *as loans* must be honored as loans. To camouflage as loans what can only develop into a gift by the process of default or repudiation will not make for a better world at home or abroad when all the consequences are reckoned in.

II. CAPITAL EXPORTS AND AMERICAN NATIONAL INCOME

GRANTED that one object of national economic policy is to maintain high levels of national income, it is often now argued that the United States can achieve this end, in part, by large annual net investments abroad. In other words, not only will capital imports be enormously helpful in reconstruction and industrial development abroad, but capital exports will facilitate the task of keeping output at satisfactory levels here in the United States. The validity of this thesis must be examined. But we mention it here because insofar as the idea has acceptance and support it means that beyond the humanitarian motives for foreign investment by the United States there may be the added drive of self-interest.

In considering the domestic consequences of large capital exports which will make the United States a large creditor nation one must recognize the peculiar position that the United States occupies in the world economy. The United States is not a densely populated nation in a small area, dependent upon the rest of the world for food and raw materials. It has and still does produce much of its own food. Indeed the war has greatly increased American agricultural production. And nature has endowed it with large and rich sources of the more important raw materials within its own borders. Finally the United States is quite the largest industrial nation. It possesses a home market big enough to afford most of the advantages of large-scale production so that costs can be minimized. Its general industrial efficiency and ingenuity are extremely high, so that it has been able to market many of its products abroad in effective competition with other countries. In brief, the United States is not desperately dependent upon the rest of the world for imports; and its capacity to export, at least in the past, has been more than satisfactory.

Indeed, foreign investment on a large scale after the war is often advocated because of the stimulus it will give to American exports. So presented it usually received the explicit or even boisterous approval of the business community at large. But the counterpart of foreign investment, if the loans are not to be defaulted, means absorbing large imports in due course. Yet for this phase of an international investment program there is at best a cold silence or at worst an enraged opposition. Apart from the cries of vested interests, however, there *are* problems for the United States in the absorption of larger imports as the second phase of an international investment program that stimulates exports. American technical efficiency in production combined with certain consumer preferences which are not easily displaced keep the demand for foreign manufactured goods below what might be expected. Foreign travel, of course, has usually been a large debit item in the balance of payments and it seems to be extremely elastic in relation to income. Admittedly the high protective tariff is a barrier to imports. But even with tariff modifications, the American absorptive capacity for foreign goods other than raw materials and crude products may be rather limited without drastic readjustments in the internal economy.

The combination of a high degree of industrial efficiency, a protective tariff policy with a long tradition, a comparative self-sufficiency in food and raw materials, and possibly a limited capacity to absorb foreign products, with or without tariff changes, places the United States in an embarrassing position with respect to the acceptance of large imports as befits a mature creditor nation. For Act I, the period of a large net outflow of investment abroad, the robes fit well and have an appealing hue. But the changed costume required to play the role of the creditor nation in Act II may take some squirming. It would be well to look at both outfits before jumping into the part.

III. THE POSITION OF THE UNITED STATES IN THE INTERNATIONAL ECONOMY

THE international economic position of the United States is also unique in view of its sheer bulk in comparison with other countries. For the period 1925-1929, according to the League of Nations, "the relative industrial importance of the United States was placed at 46 out of 100 for all countries, including the Union of Soviet Socialist Republics, or 48 per cent if the U.S.S.R. is excluded. . . ."¹ Such size in relation to the rest of the world in economic matters gives the United States a grave responsibility and a challenging opportunity.²

The enormous weight of the United States in the economic sphere, relative to the rest of the world means, that whatever happens in the American economy is of genuine significance to other countries. Whatever policies we in the United States adopt with respect to our own economy—either deliberately and consciously or by default and neglect—are likely to exert a profound influence upon the world at large. The situation is comparable to that of a rowboat proceeding across choppy water carrying passengers rang-

¹ U. S. Department of Commerce, *The United States in the World Economy*, Washington, 1943, pp. 28-29.

² This fact is appreciated more fully abroad than at home. A recent article discussing the Bretton Woods proposals in an English journal makes one of its two standards of judgment of the schemes, How do the plans reduce the economic preponderance of the United States? Schwarz, R. P., "Bretton Woods," *The Fortnightly*, October, 1944, pp. 201-209.

ing from babies and small children to adults of normal size, but including, also, one adult of great avoirdupois. The children can shift their weight around and no great consequences result. Even an adult may change his seat occasionally without seriously endangering the speed or safety of the voyage. But if the one really heavy person in the boat shifts his position or even moves about a little the other passengers will have to scramble to make compensating adjustments to avoid disaster. The position of the United States in the world economy is analogous to the large man in the skiff. Any major change in the American economy is of tremendous concern to the rest of the world and is often more important to others than it is to ourselves.

Even before the war the United States was sufficiently large economically that prosperity or depression here was almost enough to determine the immediate level of national income in much of the rest of the world. When employment and income were high in the United States, other countries enjoyed large exports at good prices notwithstanding the high tariff duties. And conversely. This relationship is likely to be at least equally pronounced after the war, even though the war is effecting some important shifts in the relative economic position of the different countries. Consequently the levels of employment and income that prevail within the United States will be of more than passing interest to the rest of the world. Moreover, it will not be simply a question of the arithmetical average of the national income but as well of its stability or instability over the years.

IV. THE NEED FOR POLICY

IT FOLLOWS from the foregoing that one of the most acute problems of the postwar world is how may the United States most effectively discharge its economic responsibilities to the world and to its own citizens.

Our obligation to ourselves is to effectuate such policies as will assure reasonably high levels of employment and income within our own borders. This is generally regarded as the prime objective of domestic postwar economic policy. And a high level of national income here will increase the welfare of the rest of the world

through its effects upon the volume of world exports already mentioned.

Our obligation to other nations has both a positive side and a negative side. On the one hand we have the negative responsibility to avoid national economic policies which benefit ourselves but disregard the increased burdens that they thrust upon the rest of the world. A policy of self-sufficiency or a rigid exclusion of all imports to avoid any adjustments at home would be instances in point. On the positive side, our external obligation is to formulate and pursue such economic policies as will genuinely contribute to the welfare of the world at large, both immediately and over the long run, without at the same time imposing insuperable handicaps upon our domestic economy. In a measure, of course, these two aspects of our American world obligation are less than completely harmonious; it will not always be true that policies which are overwhelmingly beneficial for the world as a whole, on net balance, can be "costless" from the point of view of each and every country, including the United States. Possibly the conflict between suitable domestic policies and desirable world policies may be less sharp when viewed in proper focus than at first glance. But there is a problem and it is the main purpose of Part Two to consider that phase of it which pertains to American foreign investment for purposes of economic reconstruction after the war and for the economic and industrial development of relatively low-income areas.

9 FOREIGN INVESTMENT, EXPORTS, AND EMPLOY- MENT WITH SPECIAL REF- ERENCE TO THE UNITED STATES

THERE has recently been quite a flow of argument to the effect that foreign investment after the war for reconstruction and economic development will benefit the United States almost equally with the recipients of the loans. As the writer understands it, this is not an argument stemming from Portia's discourse on "the quality of mercy." Rather it is usually a variant of the underinvestment-over-saving in a "mature" economy thesis.¹ This argument has been so ably set forth by Alvin H. Hansen and other writers with special

¹ The case for foreign investment has also been argued on the ground that it will ease the conversion of the American economy from war to peace production. Here the contention is that the heavy expansion of the capital goods industries which the war has required can be supported after the war by exports of capital goods financed by foreign lending. In this way employment can be sustained in the industries to which war production has caused a pronounced shift. In this way the necessary shift in employment will be delayed (and perhaps reduced in absolute terms as well) to the benefit of all concerned. As the writer understands it this is the argument proffered in Staley, E., *World Economic Development*, International Labour Office, Montreal, 1944, Ch. II.

Apart from certain considerations adduced in later sections of the present chapter it seems almost a sufficient comment on this argument to draw attention to the magnitudes involved. Direct war goods production from plants that might turn out exportable capital goods after the war has probably been running during 1944 at about \$3.4 billion a month. In the calendar year 1938 total American exports were only \$3.1 billion. To support the war plants by foreign lending to a degree that would make any appreciable difference in the transition from war goods to peace goods production would require a fantastic amount of foreign investment.

reference to the American economy that it seems unnecessary to present it here in more than a sentence or two.² Baldly stated it runs about as follows.

Economies which are already well supplied with capital goods and in which the rate of population growth has slowed down to one of very gradual increase tending towards stabilization have a persistent tendency to "save" large sums out of a large national income.³ At the same time, because such economies are already "built up" with capital goods and because population is not growing rapidly, investment opportunities tend to fall short of the amount people wish to save at high-income levels. The consequence is that national income falls until the amount people want to save out of their reduced incomes is equal to the aggregate investment opportunities that appear to be worth undertaking. The economy limps along on a much lower level of employment and income than it either desires or is capable of achieving. Although we have telescoped the analysis the crux of the argument is not seriously misrepresented by our few sentences.

For our purposes it matters not whether the thesis is a correct formulation of the factors at work and their causal interconnection. For our interest centers upon the manner and the degree of assistance afforded by foreign investment. More specifically we wish in the present chapter to consider the relation between American foreign investment and the amount and kind of American exports that such lending is likely to induce and how these foreign loans and resulting exports bear upon the domestic national income. In other words, we are not examining the "stagnation thesis" as such but rather trying to analyze the manner in which foreign investment is likely to impinge upon the American economy and to affect the American national income.

² Cf. Hansen, Alvin H., *Fiscal Policy and Business Cycles*, New York, 1941, or the recent articles by Paul A. Samuelson and Alan Sweezy in Harris, S. E., *Post War Economic Problems*, New York, 1943. Also Staley, *op. cit.*, *passim*.

³ It is unnecessary to argue that the proportion of income saved will be larger. The proportion may remain the same yet savings be too large in the aggregate.

I. FOREIGN LENDING AND EXPORTS OF CAPITAL GOODS *

THERE seems to be some presupposition in certain quarters that if a country "invests abroad" its exports of capital goods to the borrowing country will increase correspondingly. In some measure the association of foreign investment with capital goods exports is traceable to the very terms "capital" and "investment." The loan is made to allow an increase of (real) capital in the borrowing country. What is "lent" is called "capital" in ordinary speech. And since what was borrowed and what was lent must have been the same the inference is often drawn that, although obscured by a "veil of money," the lending country really supplied the borrowing country with capital goods, presumably through the usual export channels.

Now while there is a sense in which the above formulation is acceptable if properly interpreted it is nearly altogether false if taken to mean that capital goods necessarily flow from the lending country to the borrowing country in an amount commensurate with the loan made. Let us look into this problem with first a backward glance at a few historical instances of substantial foreign lending.

1. Relation between Foreign Investment and Exports in Great Britain in Earlier Times

During much of the nineteenth century the United Kingdom was lending abroad on a large scale. (Indeed no small part of the traditional theory of international capital movements has been drawn from British experience.) Professor Jenks' fascinating account of British foreign investment in earlier times records the following: *

* There are some additional remarks on the general theories of international capital movements in the appendix. These may be helpful to readers who are not already familiar with the topic.

* Jenks, Leland Hamilton, *The Migration of British Capital to 1875*, New York, 1927, p. 174.

"Railway iron" of the declared value of thirty-five million pounds was shipped from British ports between 1856 and 1865. In the succeeding ten-year period this item exceeded £83,000,000. Machinery including steam engines, which had been exported to the annual average value of one million pounds from 1846-50, averaged 1.7 millions, 3.5 millions and 4.5 millions, in successive five-year periods. An average of eight and one half million pounds' worth of machinery was exported each year from 1871 to 1875. Such increases as these were out of proportion both to the rise in general price levels, and to the increase of population. . . .

A good deal of this movement no doubt was associated with an investment of British capital.

At first blush the connection between foreign investment and the export of capital goods seems quite close.

Yet we must remember that the period described was a period in which industrialization was proceeding apace in many parts of the world. But England was the most advanced industrial nation; it was only to her, in most instances, that other countries could turn for machinery, for locomotives, for rails, etc. They were nowhere else to be had. Consequently the great growth in the exports of "railway iron" is possibly more to be traced to the general growth of industrialization abroad than to foreign investment by British subjects. Indeed Jenks is careful to point out that there was no traceable relation "between the destination of exported capital goods and the apparent field of activity of British investment."⁵

Jenks also describes how British enterprise built many of the first railroads on the continent of Europe. British engineers and contractors and "navvies" however carried their knowledge and abilities abroad. But it was abroad and not at home that they developed the "works" that provided the railway capital goods needed.⁶

One of the first steps taken by Thomas Brassey toward the construction of the Paris-Rouen railway was to establish the Biddicom locomotive works at Rouen.

Concerning the development of railways in the Papal States shortly after 1857 Jenks writes:⁷

⁵ *Ibid.*, p. 175.

⁶ *Ibid.*, p. 176.

⁷ *Ibid.*, p. 177.

. . . materials came from everywhere. The rails and joints were brought from Newcastle, the locomotives from Paris, the wheels from Belgium, while the carriages were manufactured for the contractor in Italy.

And a similar pattern prevailed for the Lombard railways, a railway in the Caucasus and one in Roumania. The export of enterprise, the export of "know how," as it is commonly called nowadays, was the crucial export from Great Britain that speeded industrialization on the Continent. Capital was invested and machinery was shipped abroad to be sure. But the important thing was the technical skill that British enterprisers brought to the task of industrialization. The fascinating story cannot be told here. But its outlines seem reasonably clear. The relation between foreign investment and the export of capital goods was neither close nor direct.⁸

2. *Subsequent British Experience*

From 1901-1911, inclusive, Argentine Railway issues floated in London amounted to more than £88 million.⁹ From Great Britain and elsewhere the Argentine imported locomotives, railway materials, and rails in the amount of £31 million over the same period. About £20 million came from the United Kingdom. In other words, imports of railroad capital goods were an amount equal to about 35 per cent of the total borrowed by Argentina for railroad projects. But imports of railroad capital goods from the country in which the loans were floated were only about 20 per cent of the sum borrowed. Otherwise expressed, about two-thirds of the sum borrowed for railroad construction in the Argentine was not spent directly for railroad capital goods at all. Since some of these imports were doubtless replacements not related to the new investments, the figure may even be less. The sterling balances supplied were much greater than the export of real capital goods for the undertakings.

Between 1901 and 1911 Canada apparently floated about £72 million in railway issues in London. But over the same period

⁸ Jenks writes that, "About 1850 there were English gas companies supplying Amsterdam, Rotterdam, Ghent, Cologne, Carlsruhe, Rome, Constantinople, Christiania, Tours, and Renes." *Ibid.*, pp. 185-186.

⁹ The figures that follow have been calculated from data in Hobson, C. K., *The Export of Capital*, London, 1914. Ch. I and *passim*.

imports of iron and railway bars and rails into Canada from *all* countries was only 6 per cent of this figure. And, in general, of this 6 per cent much the greater part came from other than the United Kingdom.

A comparison of South African mining issues and imports of mining machinery shows a somewhat higher ratio of capital goods imports to foreign borrowings. From 1906-1911 inclusive South African mining issues floated in London were something over £15 million. In the same period imports of mining machinery were about 35 per cent of this figure. In this instance more than half of the machinery was imported from the United Kingdom.

3. *The Canadian Case*

The careful study of Professor Viner from a much broader focus similarly shows the lack of connection between borrowing abroad and the import of capital goods.¹⁰

Between 1900 and 1913 foreign capital invested in Canada amounted to more than \$2.5 billions.¹¹ For the same period imports of selected capital goods were approximately \$1.6 billions, or roughly 65 per cent of total borrowings.¹² But by no means all of these imports could be traced to borrowings abroad. A substantial share was undoubtedly for replacement. And some goods were not used as capital goods at all (e.g., coal for heating dwellings), and others were raw materials and the like rather than fabricated products.¹³ Lastly, prices rose over the period. How much should be deducted on these counts is uncertain. But we may observe that the percentage of the selected capital goods imports to total imports rose only from 28.8 per cent in 1900 (27.2 per cent in 1901) to 38.2 per cent in 1912 and to 37.6 per cent in 1913.¹⁴ Imports of

¹⁰ Viner, J., *Canada's Balance of International Indebtedness, 1900-1913*, Cambridge, Mass., 1924.

¹¹ *Ibid.*, p. 108 and Ch. VI.

¹² Computed from figures in *ibid.*, p. 278.

¹³ The items included in Viner's selection of capital goods were the following: "bricks, clays, and tiles; cement; coal, bituminous; railroad cars, electric apparatus; ships; mineral oils; gunpowder and explosives; stone and manufactures thereof; wood and manufactures thereof; copper, iron, lead, tin, zinc, and miscellaneous metals other than gold, silver, and brass, and manufactures thereof." *Ibid.*, p. 378 n.

¹⁴ *Ibid.*

selected consumers' goods declined in importance from 25.3 per cent of total imports in 1900 to 20.9 per cent in 1913. While it is true that the real transfer of foreign borrowings to Canada was principally in the form of increased imports (rather than a fall in exports) it is also true that the imports were not wholly, or even mainly, in the form of capital goods. As Viner well remarks,¹⁵ "For most forms of capital investment a large part of the expenditure is for wages and transportation services and not for material and equipment, and much of the material required is often necessarily of a local character."

4. *Reasons for the Observed Pattern*

Rather than endeavor to multiply instances of the sort just cited it seems more appropriate to emphasize the general reasons why the pattern indicated must almost inevitably be expected.

The crux of the matter lies in Viner's statement just quoted and our earlier observations on the composition of real capital. So much real capital formation is in structures and modifications of the landscape that as a rule a large portion of the total cost of bringing it into existence must necessarily be spent locally. It cannot be imported. It cannot be done abroad. If one is to excavate for a building foundation for a textile mill it is quite impossible to have the "hole" dug abroad and imported. Local labor must be used. Hence insofar as real capital formation consists of these non-movable items, industrialization does not give rise to *direct* imports. And by the same token it does not occasion direct exports from the lending countries "financing" the industrialization.

Some direct export of capital goods of course will usually accompany foreign lending for productive purposes. But characteristically their money value will be much less than the total cost of the project. That is, if a project having a total cost of 100 is financed by foreign borrowing, the *direct* export of capital goods from the lending country will be substantially less than 100. For of the total cost of 100, only some fraction, say, perhaps 40 per cent, will consist of individual items that *can* be imported. The amount that *can* be imported will set the upper limit to the direct

¹⁵ *Ibid.*

capital goods exports from the lending country which will be induced by the loan. Typically it will be something less for two reasons. First, some, perhaps many, machines, materials, supplies, etc., will be obtainable more cheaply in countries other than the lending country. Second, not all capital goods that can be imported *must* be imported. Some will be obtainable in the domestic market at lower cost. Consequently, unless one postulates "tied loans" which *require* the borrower to buy in the lending country regardless of cost, the direct exports of capital goods from the lending country will usually be something less than the amount which could occur in view of the technical limitations.¹⁶

What fraction of the loan will be expended upon direct capital goods purchases will obviously depend upon the specific nature of the projects being undertaken. For roads and highways and bridges the direct purchases might be almost zero. For a chemical plant or a rayon mill the direct imports might be a sizable fraction of the total cost. No generalizations are of course possible. But in any given specific instance it ought to be possible to forecast the amount with fair precision. In the writer's judgment it would be the unusual project where the percentage would exceed 40 per cent.¹⁷

¹⁶ In an interesting article, "Does Trade 'Follow the Dollar,'" (*American Economic Review*, September, 1927, pp. 458-477) A. P. Winston demonstrates rather convincingly that for the period prior to 1913 the existence of "tied loans" requiring the purchase of (railroad) equipment in the lending country is a complete myth. Careful inquiry revealed that it was always the citizens of "some other country" that practiced this technique. "The investor who insists on advantages for his countryman is located by our American guides in England or Germany. The Britisher says, search on the continent. The German says, hunt him in Great Britain, also in America, where already we have sought in vain." (Pp. 475-476.) From an honest banker's point of view forcing the purchase of equipment in high-priced markets endangers the solvency of the loan; the borrower may pay so much for the equipment that the undertaking is unsuccessful.

This same article also demonstrates clearly the complete lack of identity between who financed railroad development and who supplied the equipment. Winston's study covers Argentina, Brazil, Chile, and China.

¹⁷ The full connection between foreign investment and the export of capital goods is not entirely measured by the initial shipments. If American enterprise finances a power development using American equipment in Latin America it will not last forever. As time passes its machinery will have to be replaced. When that day comes the required new machinery will probably be imported from the United States. Hence there is a subsequent export of capital goods. These annual replacements will characteristically be small in relation to the

5. *Inferences for the Postwar Period*

The significance of the foregoing for lending countries in the postwar period should be obvious. Exports of capital goods should not be expected in an amount equal to the foreign investments. Foreign investment stimulates exports, to be sure.¹⁸ But the kinds of exports that the lending causes to occur are by no means solely, or even mainly, exports of capital goods. Food, raw materials and various types of consumers' goods are likely to effect the real transfer from the lending country. This possibility is the more likely where the borrowing nation buys what tools, machinery, steel, etc., it must have from abroad in markets outside of the lending country. Here the exchange and transfer may be multi-cornered. It has perhaps rarely been described more graphically than in the following:¹⁹

Canada is borrowing money in London to finance her farmers, and with the capital borrowed in London, Canadian farmers are purchasing American machinery, and the capital actually passes into Canada in this form. This means that we have to remit to the United States the capital we have lent to the American farmer. But the United States do not require to import much English produce. They do need silk, however, and this they purchase. And now we have to settle with Japan. Japan takes payment for the silk sold to America in raw cotton from India, and India receives payment for her raw cotton in cotton piece goods from Lancashire. Thus we export capital to Canada by exporting Manchester goods to Bombay. (*Statist.*, London, October 21, 1905.)

Thus by lending abroad, the United States for example, would add to the world pool of dollars, but into whose hands these would fall at long last there is no way of predicting with any certainty. The consequence is that one cannot forecast what kinds of goods are likely to be exported from the United States in greater volume because the loans were made. In general, it will depend upon the income elasticity of demand for American products in whatever countries come to hold the dollar balances. That is, upon the

initial installation cost of capital goods imported from abroad. Yet over the years they may amount to a goodly sum.

¹⁸ The alternative theoretical possibility that foreign lending will diminish imports into the lending country appears so unlikely for the United States after the war that it is not considered here.

¹⁹ As quoted by Viner, *op. cit.*, p. 280 n.

relation between changes in the level of income and changes in expenditures on American products of various kinds. But to assume that the countries into whose hands the dollar balances ultimately come to rest, when there is American investment abroad to finance capital accumulation, will necessarily spend these greater balances for capital goods purchases is quite unwarranted. The presumption is rather the reverse. When foreign lending occurs there is an initial transfer of purchasing power from lender to borrower. So much is certain. The goods transfer which entails a rise in exports (relative to imports) in the lending country may take any form from turbines to phonograph records.

II. FOREIGN INVESTMENT, EXPORTS, AND DOMESTIC EMPLOYMENT

1. General Relations between Foreign Lending and Exports

IF THE United States invests abroad, its exports will rise relatively to imports. By making more dollars available we enable foreigners to buy more of our goods, to consume at home more of their own goods, or to practice some combination of the two. American exports may increase or, theoretically, American imports might diminish. In any case foreign investment abroad means a rise in American exports relative to American imports. In view of the past character of American imports, however, it seems probable that American exports would rise rather than our imports fall. Hence let us consider the rise in exports that could be expected to occur as a consequence of American foreign lending.

As already noted industrialization need not mean that the indispensable capital instruments—machines, steel, etc.—will necessarily come from the lending country. That will depend upon technical factors such as the kinds of machinery which the country is accustomed to use in its industrial plant and the relative costs of (say) the needed machinery when imported from different countries. Industrialization in British India would be likely to use British machinery. But industrialization in the Balkans would probably mean German, or possibly American, machinery. This is not to say that American machinery would not be used at all. But there

is no certainty that because American funds finance industrialization abroad that American machinery will necessarily be exported to those areas.

If we invest abroad to assist in the industrialization of under-industrialized areas, American exports will increase relative to imports; but to what countries they will go and what specific products they will be cannot be answered on *a priori* theoretical grounds. Some few presumptions concerning the relation between investment abroad and employment in the United States, however, can perhaps be established.

2. *The Pattern of American Exports and Their Relation to Home Employment*

The pattern of American exports prior to the war will give us some indication of the probable relation between foreign lending and domestic employment provided we can assume that the basic pattern of our exports is unlikely to be *drastically* altered by the war. While some change here is to be expected because of industrialization in the rest of the world, neither its magnitude nor direction can be predicted with any great certainty. Yet because the direction and composition of international trade seem to be based rather firmly on economic differences that yield only slowly to change it may not be unreasonable to suppose that if we invest abroad after the war the increase in our exports will occur chiefly in those commodities in which we (apparently) had a marked superiority before the war.²⁰

²⁰ It should perhaps be emphasized that we are not concerned at the minute with the *volume* of trade but with its *composition*. More specifically, if the volume increases because of foreign lending, is its composition likely to be closely similar to what it has been in the past?

The two factors most likely to alter the composition of our exports are industrialization in the rest of the world outside of the war zones—Latin America, India, the British Dominions, etc.—and the likelihood that the peace terms will deliberately endeavor to weaken Germany as a supplier of manufactured goods, especially machinery. The former development is likely to reduce our exports of manufactured goods, the latter to increase them. But since our exports to Europe were so much more important than our exports to other parts of the world (except Canada) one would expect the proportion of manufactured goods exports to total American exports to grow rather than shrink after the war. Partially offsetting this tendency in the earlier postwar years will be the need for Europe to restore its real working capital stocks by heavy

The percentage composition of American exports and imports in certain recent years is indicated by the following table prepared by the League of Nations.

TABLE XII
PERCENTAGE COMPOSITION OF UNITED STATES FOREIGN
TRADE IN MERCHANDISE ²¹
(Selected Years)

	<i>Imports</i>			<i>Exports</i>		
	1928	1935	1937	1928	1935	1937
Foodstuffs and Live Animals.....	25	32	29	15	9	8
Materials Raw or Partly Manufactured.....	50	47	51	43	47	42
Manufactured Articles..	25	21	20	42	44	50
	100	100	100	100	100	100

If approximately the same ratios for exports held after the war one could assume that net foreign investment of, say, \$1 billion would increase our exports of manufactured articles by about \$450 million, of raw and partly manufactured materials by about \$400 million, and of foodstuffs \$150 million. These would not be the full and ultimate increase in exports but only those which could be *directly* attributed to the foreign investment.²²

Since manufactured goods exports bulk large in total American exports let us examine these further. The following table prepared by the United States Department of Commerce is revealing.²³

imports of raw materials. Some of these will almost have to come from the United States. Consequently on balance the writer believes that the most reasonable assumption is that foreign lending will probably mean an expansion of American exports having about the same composition that American exports had before the present war.

Of course a wholesale lowering of trade barriers the world over is another matter. But is this likely?

²¹ *The Network of World Trade* (Economic and Financial, 1942, II, A. 3). Geneva, 1942, p. 23.

²² There would be induced exports arising from growing incomes abroad. We have already dealt with this question in Chapter VI *supra*. Furthermore, insofar as the loans were used to buy, say, American machinery, there might well be exports of machinery for replacements over the years.

²³ United States Department of Commerce: *The United States in the World Economy*, Table 7, p. 59.

TABLE XIII

UNITED STATES EXPORTS OF LEADING MANUFACTURED
GOODS IN SELECTED YEARS

(In Millions of Dollars)

Year	<i>Iron and Steel- Mill Products</i>	<i>Ma- chinery, All Classes</i>	<i>Auto- mobiles, Including Engines and Parts</i>	<i>Total</i>	<i>Index (1929 = 100)</i>
1922....	136.2	233.9	103.2	473.3	35.2
1929....	200.1	604.4	541.4	1345.9	100.0
1932....	28.9	131.3	76.3	236.5	17.6
1937....	300.1	479.1	346.9	1126.1	83.7
1938....	184.2	486.3	270.4	940.9	69.9

Here we observe that machinery, automobiles, and iron and steel products accounted for \$1,345.9 millions of American exports in 1929.²⁴ Considered alone this is a large figure. But how large was it in relation to American manufacturing in these industries and how much employment did it occasion?

The importance of the export sales in these three industries is roughly indicated by comparing their export sales with their gross value of product. For the year 1929 we find the relationship to be that shown in Table XIV which follows immediately below.²⁵

TABLE XIV

RATIO OF EXPORTS TO GROSS VALUE OF PRODUCT IN
CERTAIN MANUFACTURES

	<i>1929 Gross Value of Product (\$ mil.)</i>	<i>1929 Exports (\$ mil.)</i>	<i>Percentage of Gross Value to Exports</i>
Iron and Steel Products	7,138	200.1	2.7
Machinery.....	7,043	604.4	8.5
Automobiles.....	3,930	541.4	13.7

²⁴ Total exports of finished manufactured goods in 1929 from the United States were \$2.53 billion so that exports of machinery, automobiles, and iron and steel products were 53 per cent of total exports of manufactured goods.

²⁵ The data for gross value of product are from Kuznets, S., *Commodity Flow and Capital Formation*, New York, 1938, pp. 24, 136-137. By contrast it is interesting to observe that somewhat similar figures for Germany show the proportion of industrial output exported to be much greater, amounting, apparently, to about 20-25 per cent of total industrial production for the years

How much "direct" employment did these particular exports entail? If we assume that exports were responsible for no more (or no less) direct employment in relation to sales than production sold at home, the direct employment occasioned by exports would be that percentage of total employment which export sales bore to total sales. The computation can be made for "factory employment" only by using census data as reported by Solomon Fabricant.²⁶ On this basis the total direct factory employment attributable to these exports in 1929 was:

Iron and Steel.....	23,660
Machinery.....	95,310
Automobiles.....	61,307
	<hr/> 180,277

This figure of 180,000 persons, it should be emphasized, is only for direct employment in these three industries. Some unknown number of additional persons were obviously employed in mining ore for the machines that were exported, producing coal for their transportation, etc. Perhaps all told 360,000 to 400,000 persons might have traced their employment to the exports of these three groups of manufactured goods in 1929. And as we have already noted, manufactured goods exports were a high proportion of total American exports in 1929. But even in a year when the aggregate of American exports was the largest on record, prior to World War II, the employment directly occasioned by exports of the chief manufactured goods was surprisingly small.

It is worth noting in passing, moreover, that for the prewar period the three principal manufactured goods exports (machinery, automobiles, and iron and steel mill products) were less stable than manufacturing as a whole in the decline in national incomes that began in 1929. In other words, they were products whose sales were more sensitive than manufactured goods as a whole to declines in national income. This is not surprising in view of their character as principally durable producers' and consumers' goods. The important point is that when the national income in the

1925-1934. See Robinson, N., "German Foreign Trade and Industry after the First World War," *Quarterly Journal of Economics*, August, 1944, pp. 615-636, especially pp. 621-622.

²⁶ *Employment in Manufacturing, 1899-1939*, New York (National Bureau of Economic Research), 1942.

United States began to decline after 1929, exports of manufactured goods did not act as a sustaining factor in manufacturing employment.

In 1929 wage earners in manufacturing were 8,362 thousands. Of this figure only 29 per cent were in iron and steel products, machinery and automobiles. Between 1929 and 1933 total factory employment in manufacturing dropped by 30 per cent. But the decline in employment in the three industries which bulked large in manufactured goods exports was 43 per cent of the total decline in manufacturing employment. In other words, the manufactured goods that were exported by the United States were more unstable in terms of employment than manufactured goods as a whole.²⁷

The actual fall in the exports of iron and steel products, machinery, and automobiles from 1929-1933 was of course much greater than the decline in factory employment in these industries in the United States. That is, while our principal manufactured exports were from industries in manufacturing that were domestically more unstable than manufacturing as a whole, the export side of these industries declined much more than the domestic portion. (See Table XIV.) But this is probably not to be charged to a higher income elasticity of demand abroad than at home for these goods but doubtless almost exclusively to the growth of trade restrictions on American products abroad after 1929.²⁸

But it is unnecessary to labor the main point we are here endeavoring to emphasize. That is, while exports of manufactured goods in 1929 were a large figure viewed as an absolute amount they were at the same time comparatively small in relation to

²⁷ Calculated from Fabricant, S., *Employment in Manufacturing, 1899-1939*, New York, 1942, Appendices B and F.

²⁸ It is possible to make a rough guess concerning the contribution of exports to unemployment in these three groups, apart from trade restrictions, by making a few assumptions. In 1929, for example, exports accounted for 2.7 per cent of gross value of product in Iron and Steel Products. If we assume (as before) that exports therefore were responsible for 2.7 per cent of 1929 employment in Iron and Steel, then we might say that if total employment therein declined 328,700 between 1929 and 1933 that exports would have caused 2.7 per cent of this drop, or 9,275 persons. Similar computations for machinery and automobiles would give figures of "contributions" to unemployment of 48,977 and 27,187 respectively. In other words, directly about 84,400 persons could perhaps be expected to be thrown out of work *had exports declined no more than domestic production* and had they accounted for the same employment in production at home as goods sold on the home market.

total employment of wage earners in manufacturing. Using the methods of computation we have previously described the *direct* factory employment traceable to the principal manufactured goods exports in 1929 was about 180 thousands.²⁹ Total employment therein was 8,362.2 thousands. Hence the ratio of direct employment attributable to exports of manufactured goods to total employment (of wage earners) in manufacturing was approximately 2.28 per cent.³⁰

3. *Relevance of the Foregoing to the Case of American Foreign Investment after the War*

The relation of the foregoing analysis to the problem of the effect of American foreign lending upon domestic employment hinges upon the validity of the presumption we have already suggested. That presumption was that the rise in American exports as a consequence of investment abroad might be expected to show a composition similar to the composition of American exports in the past. In other words, about 42-47 per cent in manufactured goods, about 40-44 per cent in raw or partly manufactured goods,

²⁹ See *supra*, p. 137 ff.

³⁰ *The Statistical Abstract of the United States* (1938), p. 435, gives estimates for the percentage that manufactured goods exports bore to total manufacturing production where the latter is measured in "net value" terms. These figures run higher than for the three industries we have discussed above. Using "net" instead of "gross" value of product makes the denominator smaller and hence the percentage larger, of course. For selected years the percentages follow: (The effect of early postwar conditions on manufactured goods exports shows up sharply in the 1919 figure.)

Manufactured Goods Exports as Per Cent of Net Value of Product

1919	12.2-12.6
1923	6.6- 6.8
1925	7.9- 8.2
1927	8.4- 8.7
1929	8.6- 8.8

We have also percentages calculated in *ibid.*, p. 435, for the proportion of exportable goods exported. These follow, again for selected years, without reference to changes in the gold content of the dollar.

1919	16.0	1929	9.8
1921	12.8	1931	7.4
1923	8.9	1933	6.6
1925	10.1	1935	6.8
1927	9.9		

and the balance in foodstuffs and live animals. This assumption, of course, may not be borne out by the facts as time passes. But, in the writer's judgment, there is more reason to assume an approximate continuance of the past composition of exports than to expect some drastic change.³¹

On this basis we could guess that of any sum invested abroad after the war about (say) 45 per cent of it could be expected to lead to direct exports of manufactured goods, although not necessarily, to be sure, to the countries where the funds were invested.

We noted that in 1929 exports of manufactured goods in the amount of \$1,345.9 millions (machinery, iron and steel, and automobiles) could perhaps be charged with *direct* employment of about 180,000 persons.

If we assume that *additional* exports would require *direct additional* employment in the same ratio, then we could guess that for each 1 billion dollars' worth of similar exports about 133,700 persons could be expected to be employed in manufacturing.³²

The same relationship can be expressed the other way about. If exports of manufactured goods are to be 1 billion dollars greater as a consequence of foreign investment, then assuming the composition of total exports to remain roughly the same as in the past foreign investment of about 2.222 billions would have to be made.

4. Foreign Investment and American Postwar Employment

It is important that we emphasize the reasons why we have dealt with the question of the relation between American investment abroad and *American* exports at what may appear unnecessary length. Our purpose has *not* been to belittle foreign trade nor to argue against promoting it to a high level. From the point of view of the world as a whole foreign trade, including *American* foreign trade is important. And in the postwar world all countries will

³¹ We may not export so many passenger automobiles but perhaps more trucks and busses, for example. But changes of this kind are not serious from the point of view of employment.

³² This assumes no technical changes in production. It assumes also that the principal manufactured goods exported would be of the same sort as exported in 1929 or that they were "employment creating" in the same degree. Neither might be true of course. But I know of no way of allowing for these difficulties. Certainly technical improvements have occurred.

benefit from measures taken to increase the volume of world trade.

Our concern in the present section was to suggest that those who argue for foreign investment as a means of augmenting domestic employment must either envisage foreign investment by the United States on an enormous scale or they must assume a much larger employment stimulus at home from foreign investment than seems to be warranted. A rate of foreign lending of \$8-10 billions a year might be an effective means of stabilizing American national income at something approximating a full employment level. But one finds it hard to suppose that any such figure is seriously proposed, or, that if it is, it is suggested on an "investment" basis from which the United States would expect to receive at least "service charges" if not any ultimate repayment of principal in the foreseeable future. On a donation-gift basis, of course, the dollar sums made available raise no comparable balance of payments problems. Hence if one is to rely on foreign investment to give the major "lift" to American national income or to "sustain" it once it attains an acceptable level, one must presuppose a volume of postwar foreign lending by the United States very much above any figure that it seems reasonable to contemplate. A "moderate" stream of investment—say, \$2-3 billions a year—cannot be expected to provide more than a minor stimulus to American national income.

The reasons for this conclusion are perhaps adequately revealed simply by comparing the figure mentioned (\$2-3 billions) with aggregate domestic investment in the United States in recent times. For the period 1919-1935 *gross* capital formation averaged about \$14.0 billions measured in current prices, and about \$13.5 billions in 1929 prices, when movable consumers' durable goods are *omitted*. If the latter are included, the figures rise to \$21.0 billions and \$20.6 billions respectively. But these averages include six years (1930-1935) of under-employment; years when gross capital formation (omitting movable consumers' durable goods) in current prices fell from \$20.2 billion in 1929 to \$3.1 billions in 1932 and even in 1935 only climbed back to \$9.0 billion.³³ Notwithstanding these six low years the average for 1919-1935 was about \$14.0.

No one can venture more than a reasonable guess as to the size

³³ Kuznets, S., *National Income and Capital Formation, 1919-1935*, New York (National Bureau of Economic Research), 1937, Ch. VII. Measured by Variant II the figures for 1929, 1932, and 1935 were respectively \$30.2, \$6.9, and \$14.9.

of gross capital formation appropriate to a national income of \$140-145 billion (in 1944 prices) which might accord with some acceptable definition of "full employment." But the probabilities are that at that income level gross capital formation would need to approximate possibly \$22-25 billions if full employment were to be sustained. If this figure were found necessary it is apparent that only a small fraction of it would be supplied by foreign investment of \$2-3 billions a year.³⁴

Let us repeat, however, what we have already emphasized concerning the purpose of the present section. We are *not* arguing that international trade is not worth bothering about. We are suggesting that as a sustainer of high level employment in the domestic economy it is not likely to be a major item. Domestic investment is so much more important.³⁵

III. FOREIGN INVESTMENT AND NATIONAL INCOME

WE NOW wish to analyze briefly some of the similarities and points of difference between home investment and foreign investment in relation to national income. Although the generally accepted formulation is that the two are essentially the same in this respect, the question may yet bear examination.

The theory that relates investment to national income is usually expounded for a "closed economy," that is, an economy not having economic relations with other economies by way of trade, financial dealings, and the like. Consequently the problem of differences between home and foreign investment in relation to national income does not arise. A similar conclusion is reached by taking the whole world as an economic unit. Investment is investment and quite independently of where it occurs, if unemployed resources

³⁴ It might appear somewhat inappropriate to compare gross capital formation with net foreign investment. But the same problems of capital depletion do not occur in foreign investment as in domestic.

³⁵ If we examine Kuznets' figures we see also that a very large fraction of gross capital formation—more than 50 per cent—is residential, business, and public construction. By no means can this type of capital goods activity be exported. Cf. *Ibid.*, p. 42. See also *supra* Chapter II, Table III.

exist, it works in the direction of increasing income. This is perhaps the usual formulation.

From the point of view of any one country, however, the case is not quite so simple. Let us look into this.

Investment abroad would be just as helpful to domestic employment as investment at home were all goods of whatever kind capable of entering into international trade. But in fact this is not the case. The "real transfer" (as opposed to the money transfer) that foreign investment requires can only be achieved by a rise in exports (relatively to imports) of goods that are able to move in trade between countries. In the main these fall into three principal categories: finished consumers' goods, semi-fabricated goods and raw materials, and movable producers' goods.³⁶ It is through exports of goods in these categories that the real transfer which foreign investment entails is achieved. In other words, the initial expenditure of the domestic funds transferred to the foreign borrowers *must* go for goods of these three kinds that can move in international trade.

But this is the same as saying that foreign investment can only swell the domestic income stream initially through the increased purchase of goods that can move in international trade. In the first instance, in other words, the impact of a unit of foreign investment is to raise incomes in those industries whose products can move in foreign trade.³⁷

Domestic investment by contrast has two *additional* avenues by which to enter the income stream; and one of them is especially helpful in terms of home employment. The first is certain service industries which by their very nature have to be locally supplied and consumed. The second, and more important for present purposes, is immovable producers' goods, especially products of construction. These two industries may be the object of initial expenditure in the case of domestic investment, but they are pre-

³⁶ No brief except convenience is held for this classification. The League of Nations studies commonly classify merchandise trade into "Foodstuffs and live animals," "Materials raw or partly manufactured," and "Manufactured articles." This would do almost as well for our purposes. The point of relevance is what is omitted, not the classification of what actually moves in trade.

³⁷ The secondary and later effects through the increased expenditure by those who were the first to have their incomes raised are of course not so restricted.

cluded in the case of foreign investment. But of what consequence is this?

In order to forestall misunderstanding let us emphasize at once that our differentiation here between home investment and foreign investment relates entirely to the *initial* expenditure that the two investments occasion. Beyond the first act of expenditure—the amount of the investment—the sequence for home and foreign investment is undoubtedly much the same. The marginal propensity to consume will probably be no different in the one case than in the other. But we would be inclined to insist that because foreign investment cannot impinge directly upon the domestic immovable capital goods industry it is less helpful to home employment than domestic investment.

Our reasons for so holding are twofold. In the first place, the capital goods industry is the one most likely to fall into a slump and so cause total employment to turn downwards. And within the capital goods industry the immovable capital goods are a sizable fraction of the whole. Hence, from the point of view of home employment, it is desirable that, in general, the initial investment expenditure should devolve upon the capital goods industry directly. It is here that unemployment is most likely to threaten, and here also that unemployment is likely to be most acute when it does occur.

The second reason for holding that it is beneficial to employment to have the *initial* investment expenditures paid out for capital goods (and immovable capital goods in particular) is that expenditures for capital goods are less likely to call forth disinvestment of inventories instead of direct employment. If the initial expenditure goes for goods that can move in international trade, the primary employment effect is likely to be less than if it goes for immovable capital goods. Goods that can move in international trade are goods that can be inventoried and whose output can be increased from existing productive facilities without any necessary purchase of more capital goods. To be sure, if domestic purchases of goods that can move in international trade increase sufficiently because foreign investment is very large the sellers of these goods will, ultimately, have to increase their purchases from manufacturers; the latter, in turn, may have to employ more laborers and perhaps even add to their production facilities by ordering more

capital goods. But the last step might be long delayed, and unless the increase in foreign investment were quite large it might never be taken at all. Instead of activating the capital goods industry directly, the domestic expenditures occasioned by foreign investment might dissipate their force in a decline in inventory holdings on the one hand and a rise in output from existing productive facilities on the other.⁸⁸

The same reasoning can be stated as follows. The capital goods industry is a peculiarly appropriate object for the initial expenditures from foreign investment because its goods are not likely to be inventoried and because it is the danger or trouble spot in terms of unemployment. Capital goods, as a class, are more nearly "made to order" rather than carried "in stock." And immovable capital goods, particularly construction, are not carried in stock at all. Hence, per unit of expenditure for new investment, capital goods purchases tend to be employment creating to a greater degree and in a shorter time interval than other goods purchases. But immovable capital goods are the very goods which the initial expenditure occasioned by foreign investment *cannot* touch at all and which, by contrast, domestic investment is *likely* to fall upon to a substantial degree. Foreign investment stimulates employment in the immovable capital goods industry in a wholly indirect fashion. Domestic investment works directly towards the same end.⁸⁹

⁸⁸ The sequence described above with respect to disinvestment of inventories and increased output from existing productive facilities in the case of foreign investment has a certain parallelism to the observed facts of the impact of war expenditures upon the American economy.

For reasons that are not important in the present context, the war expenditures were far from evenly distributed geographically after December 7, 1941. In particular the Pacific Coast area was an area of extreme concentration: here incomes rose, unemployment fell, and a boom developed. But the boom did not quickly spread to all parts of the country even though there was increased buying from markets in other parts of the country. It took some little time before incomes rose and unemployment fell significantly in these regions. And more particularly there was no need to increase installed production facilities appreciably. The increased buying occasioned by increased investment on the Pacific Coast could be handled from inventories and existing facilities. Indeed for some time after war expenditures in the country as a whole had reached prodigious figures, New York City had an unemployment problem.

⁸⁹ If the reader is loath to accept the argument just presented, let him ask himself whether, in trying to work out of a slump, it makes any difference at what point in the economy new expenditure is injected. Surely an affirmative answer must be given. And the reason is that if there is an injection into the

The fact that foreign investment cannot directly activate the industries making immovable capital goods would be of less consequence were construction, the immovable capital goods *par excellence*, not such a large fraction of gross capital formation, i.e., gross investment. We have dealt with this point at some length in Chapters II and III and elsewhere in Part One. The analysis need not be repeated here. In the United States at least, something more than half of gross capital formation is construction.⁴⁰ Maintaining construction at a high level of activity goes a long way towards maintaining investment at a figure large enough to assure adequate employment.

The dominance of construction both as a component of gross capital formation and as a contributor to total unemployment means that foreign investment can only influence domestic construction by roundabout paths. If a foreign country borrows to construct a power plant or a rayon factory, there is no way by which such construction activity abroad directly activates the domestic construction industry. One cannot export an excavation for a building foundation. The task has to be done *in situ*. Steam shovels, bulldozers, and building materials may be sent abroad: but not foundations for buildings, finished structures, and the like, which constitute such a large fraction of total real capital in any country. The consequence is that investment abroad cannot stimulate the domestic construction industry in the same manner as home investment. In its effects upon home employment foreign investment is more nearly like directly adding to consumers' incomes than like public works because its effects can only be transmitted through increased sales of goods capable of moving in international commerce. From a cosmopolitan point of view, foreign investment is investment like any other investment since it means

income stream at any particular point it takes time before it shows its effects at all other points in the economy. And at some points its effects may be imperceptible. One cannot assume that if there is increased spending in particular finished goods markets that the capital goods industry will be drawn to a higher level of employment quickly or even ultimately. There may well be enough slack (including existing inventories) in the finished goods industry to make capital goods purchases unnecessary. The construction industry may be a long time in feeling the effects of the greater spending in finished goods markets. And yet it may be the construction industry and other capital goods industries that are most in a slump.

⁴⁰ See *supra* Tables III, IX.

an increase in the world demand for capital goods. But from the point of view of the country financing accretions to real capital abroad it does not mean a direct stimulus to its own capital goods industries in a manner parallel with home investment. Its effects upon the domestic capital goods industries are indirect and tenuous except insofar as capital instruments, such as machines, are actually shipped abroad because of foreign investment commitments.

It has seemed worth-while to emphasize these differences between foreign investment and home investment in their effect upon domestic employment since it is often implied that the two are interchangeable for a country threatened with underemployment and likely to encounter difficulty in maintaining aggregate investment at a figure high enough to prevent a drop in national income. The difference between home investment and foreign investment, moreover, is all the more significant if one clings to the stagnation thesis in which the need for *extensive* investment is alleged to have diminished because of a diminishing rate of population increase. Extensive investment is construction. The fact that the Chinese need more and better housing can scarcely maintain employment in the American construction and ancillary industries, even though American funds finance housing developments in China.

The consequence is therefore that insofar as real capital formation from foreign borrowing manifests itself in an activation of the construction industry, it is the construction industry in the *borrowing*, not the lending, country which is stimulated. No means of exporting construction has yet been devised and until that time there is an inescapable difference between domestic and foreign investment in their mode of operation upon domestic employment. In general, big construction projects abroad leave domestic employment in the construction and related industries much as they were. If construction is increasing abroad our exports of construction machinery may increase somewhat.⁴¹ But it is a devious and

⁴¹ The amount of construction machinery needed for a given expenditure upon construction varies a good deal according to the type of construction being undertaken and, of course, the relative costs of labor and equipment. Yet the proportion between needed construction machinery and the total cost of the construction project is much smaller than commonly supposed. For highway construction in the United States "equipment having a value, when new, of 15 per cent of a full season's completed work is sufficient, with some margin for unfavorable conditions." For heavy construction work—dams, dredging,

perhaps slow process by which greater production and exports of construction machinery increase employment in the domestic construction industry.

Hence in the writer's opinion it is not a matter of indifference from the point of view of home employment whether the stimulus is home investment or foreign investment. Home investment concentrates spending in the capital goods industries directly where the primary employment effect is likely to be greater and where the dangers of a slump developing are most acute. More employment is created and created sooner and at precisely those points where it is most serious. Hence unless one is prepared to disregard the rate of change to a given stimulus or is indifferent to the amount of spending necessary to achieve a given result foreign investment and home investment are not identical and cannot be so regarded.

tunnels, etc.—the fraction might run a little higher, while for building construction 5 per cent appears to be adequate. As an average for construction as a whole apparently 12 per cent is sufficient. See *Monthly Labor Review*, May, 1944, pp. 921-922. These figures relate to the value of the equipment *new* and pertain to the United States. With less expensive labor in other countries the percentage would presumably be lower, possibly very much lower.

10 IMPORTS IN RELATION TO AMERICAN EMPLOY- MENT AND NATIONAL INCOME

I. INTRODUCTION

AN ANALYSIS of the relation between imports from abroad and the American national income can proceed from several alternative assumptions. In the first place one may inquire what aggregate imports are likely to be if the American national income is maintained at a high level without substantial modification of existing tariff rates and without fresh foreign lending on a large scale. Second, one may consider what imports would be likely to come in in large volume if existing tariffs were lowered appreciably, and what would be the effect of these imports upon domestic employment. Finally, one might analyze the probable consequences of the United States taking a full-fledged creditor position with a strong passive balance of payments. And this last question can be examined both on the assumption that the United States modifies its heretofore strict protectionist policy and, alternatively, on the premise that it continues to adhere to it.

The traditional argument for imports stems directly from the gains to be had from an international division of labor. If one grants that the self-restorative powers of the modern economy are sufficiently powerful to maintain acceptable levels of national income (with only occasional and brief aberrations therefrom), the traditional argument is a powerful one. For it is easily demonstrated that the world as a whole will be better off with the same contribution in effort if nations specialize and trade with one an-

other than if they strive for self-sufficiency. But if international specialization and trade are carried on between economies that are periodically falling into a slump characterized by serious unemployment it may not be true that the world as a whole will be better off pursuing a policy aimed at maximizing international specialization and trade. What is gained through the international division of labor may be more than offset by the cuts in national income occasioned by having to endure prolonged and widespread unemployment.

And in eschewing specialization and world trade the makers of national policy need not believe that the *cause* of the slump lies in foreign trade. It is sufficient to believe only that anti-depression measures are more difficult to handle as part of a world economy than in a closed economy.

The consequence is that we must examine imports in their relation to the volume and distribution of domestic employment. For if it should appear that making the United States a better market for the rest of the world is incompatible in a measure with the maintenance of reasonably full employment here at home then such a policy might appear unwise both from the American point of view and from that of the world at large. The unfortunate (?) fact seems to be that the American economy is so large relative to the rest of the world that the maintenance of high income levels here is of pre-eminent importance in fixing the level of prosperity or depression in the rest of the world. Consequently both from the American point of view and almost equally from that of the world as a whole a high level of domestic employment is of more than passing interest; it must be considered in conjunction with any international economic policy which the United States may elect.

Section II of the present chapter analyzes American imports in times past but with special reference to their relation to national income. In this way we may gain some inkling of probable imports (with unchanged tariff rates) at high income levels.

Section III tackles the problem of tariff reductions and endeavors to suggest a few pertinent considerations concerning the effect of the resulting imports upon American domestic employment.

Section IV examines the effect upon the American balance of

payments of capital exports at different rates; it also endeavors to assess the capacity of the American economy to absorb imports and at what real cost to the domestic economy.

II. AMERICAN NATIONAL INCOME AND AMERICAN IMPORTS

AMERICAN imports in the recent past have displayed three important characteristics. In the first place they have consisted in an overwhelming degree of raw materials and other products requiring further fabrication. In the second place, in their variation through time, they have correlated very closely with the index of industrial production. Thirdly, their physical volume is not apparently much affected by price changes.

1. Source and Composition of American Imports and Their Relation to Industrial Activity

According to the Bureau of Foreign and Domestic Commerce, for the years 1935-1937, ". . . more than 70 per cent of all imports by value consist of materials for further fabrication. Another 8 or 9 per cent is made up of fats and oils and fuels and lubricants, and about 10 or 11 per cent consists of foodstuffs. Finished consumers' goods other than foodstuffs represent less than 6 per cent of total imports."¹ Over the whole period 1919-1939 we find the following percentage distribution:²

	<i>Per Cent of Total Imports</i>
Crude Materials.....	35.2
Crude Foodstuffs.....	12.7
Manufactured Foodstuffs.....	13.4
Semi-Manufactures.....	18.3
Finished Manufactures.....	20.4

Included in finished manufactures, moreover, were newsprint and jute manufactures, to the amount of 6 per cent of total im-

¹ U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, "Foreign Trade After the War" (processed), Washington, October, 1943, p. 7.

² U. S. Department of Commerce, *The United States in the World Economy*, Washington, 1943, p. 40.

ports, which are perhaps more in the nature of raw materials than commodities ready for consumption in the usual sense.

Where did these imports come from and what was their composition as between one source and another? Although American imports of merchandise fell from \$4.39 billions in 1929 to \$3.08 billions in 1937 the proportions contributed from various parts of the world remained remarkably steady as the following figures indicate: ³

TABLE XV
PERCENTAGE DISTRIBUTION OF U. S. IMPORTS 1927 AND 1937:
BY ORIGIN

<i>Per Cent of Total Imports from</i>	<i>1929</i>	<i>1937</i>
North America:		
Northern.....	11.7	13.2
Southern.....	10.6	9.2
South America.....	14.5	13.7
Europe.....	30.3	27.3
Asia.....	29.1	31.4
Africa and Oceania.....	3.8	5.2
	100.0	100.0

In other words, almost 60 per cent of our imports came from Europe and Asia. It is also interesting to observe the composition of our imports according to the type of goods that came from each continent. Here we give the percentages for 1937 only: ⁴

TABLE XVI
PERCENTAGE DISTRIBUTION OF U. S. IMPORTS FROM EACH
CONTINENT BY TYPE OF COMMODITY, 1937

	<i>Total</i>	<i>Crude Materials</i>	<i>Food- stuffs</i>	<i>Semi- Manu- factures</i>	<i>Finished Manu- factures</i>
North America.....	100	12.3	44.1	20.9	22.7
South America.....	100	34.0	52.6	12.8	.6
Europe.....	100	18.0	18.4	30.1	33.4
Asia.....	100	55.4	14.6	18.2	11.8

As stated already, American imports fluctuate closely with the volume of industrial production in the United States. This is par-

³ *Statistical Abstract of the United States*, 1938, p. 458.

⁴ *Ibid.*, p. 455.

ticularly true when imports are measured in physical volume rather than in value terms. But even in value terms the parallel movement of imports, industrial production, and national income is quite close from 1922-1939. In the main, the close relationship between imports and industrial production is attributable to the composition of American imports as already described. If most of our imports were raw materials and semi-manufactured goods it is only to be expected that their volume would fluctuate closely with industrial production within the United States. With a high level of industrial activity in the United States we import in large volume. The world supply of American dollars is large. And, in general, economic conditions abroad are rendered favorable by the existence of a brisk American demand for primary products.

But the causal connection between industrial activity in the United States and world prosperity does not end here. There is also the matter of prices.

A high level of industrial activity in the United States not only means that our imports of primary products will be large. It also means that the prices received by foreign exporters will be relatively high because the American demand for such commodities is so frequently a large fraction of the total world demand. Hence a high level of industrial activity in the United States means not only that other countries sell *more* of their raw materials and semi-manufactured goods but also that they get better prices for them. On both counts the world supply of dollars available is substantially increased. But because the material cost is usually a small part of the total cost the higher prices are not a serious deterrent to their consumption by American industry. Within the United States these products have a high income elasticity of demand but a low price elasticity of demand.

These comments are not to be interpreted, of course, as descriptive, without qualification, of all American imports of primary products. In not a few instances—rubber, coffee, tin, for instance—commodity price control schemes were operative from time to time and so raised import prices. Furthermore, since the great depression, the primary raw materials have scarcely regained the prices attained in the twenties, due, in part, doubtless, to the growth in the use of substitutes (e.g., for silk) and to trade policies aimed at national self-sufficiency. Consequently on the supply side

excess capacity and low prices were fairly common. But as the Department of Commerce study points out,⁵ "The influence of changes in the American market stood out with particular clarity in the depression of 1937-38, which was much more pronounced in this country than in other leading industrial countries and produced immediate effects on world prices for raw materials and foodstuffs."

2. *American Imports when National Income Is Stable*

The foregoing concerns the relation between American imports and the fluctuations in American national income. The close similarity of movement in the two in times past seems to be reasonably clear. Yet we have now to ask a different, though related, question: what can one say concerning the relation between national income and imports when national income is *not fluctuating* violently as it did, for instance, in the period 1929-1939, but is, on the contrary, maintained *steady* at high levels with perhaps a secular trend upwards? In what respects will the relation between imports and national income be altered and what is the probable net result? Several points are worth suggesting for consideration.⁶

In the first place, we may observe that, with present tariff schedules, certain goods tend to be imported only at high levels of national income. Otherwise domestic production is adequate to supply consumption needs. Wool is the classic case, but there are others, e.g., copper. In instances of this kind it seems reasonable to suppose that were national income to remain at a high level *for an extended period*, and hence sustain aggregate demand for these products, domestic production would expand. In other words, instead of imports being sustained at a high level because national income was large, domestic output would probably increase and be marketed at prices to undersell the imported product *given the present tariff rates*. In the past it has not been profitable to expand domestic production further because only sporadically has national

⁵ *The United States in the World Economy*, p. 41.

⁶ I am indebted to Professor Jacob Viner for some stimulating suggestions in oral discussion of some of the points considered in the following few paragraphs. He has not seen the manuscript, however, and is in no sense to be considered in agreement with what I have written.

income, and thus the price of the product, been high enough to warrant a greater output. But a sustained high level of national income might well be another story.

It is of course quite impossible to say by how much and for what specific products this tendency would reveal itself at persistently high levels of national income.⁷ Yet it seems altogether reasonable to suppose such a development would occur, and that in the aggregate, given existing tariff schedules, it would reduce the absorption of imports below what it has been when American national income has reached (relatively) high levels in the past. In the main, our tariff rates have been fixed in relation to some "normal" domestic prices. But "normal" prices have been less than what can be expected at high income levels after the war. Hence some domestic expansion of output at a profit could occur at somewhat higher prices and still be marketed to undersell foreign producers who are hampered by the duty.

A second factor may also diminish our (probable) absorption of imports at high levels of employment and income below what it has been in the past when we had a brief spell of nearly "full employment." This is the inventory accumulation and dis-hoarding problem.

One of the commonest phenomena in economics is the accumulation of inventories in a period of advancing business activity. This is often a simple speculative reaction: the effort to profit from rising prices in a rising market. In part, however, it is an effort to have sufficient inventories on hand to meet a future rate of output which often is never realized. In any actual instance, of course, one cannot separate statistically the one from the other. But when the peak is seen to be past, purchases of inventoried materials fall off more drastically than output. So it has been with American purchases of certain raw materials from abroad. Wood pulp and standard newsprint imports (in physical volume) have at times been imported at a rate notably above current rates of production of paper products, paper, and printing and publishing. Similarly imports of unmanufactured wool and mohair and (to a lesser degree) hides and skins have grown more rapidly than the current production of the products made from them. Inventory accumulation was

⁷ In the wool case, for example, it would also depend upon the price of mutton since the two are produced from the same animal.

occurring. Conversely, when the volume of production and trade declined, the physical volume of imports declined even more. Inventories that earlier appeared deficient later appeared excessive. Inventories were "worked off."

The consequence of the foregoing is that our absorptive capacity for imports at sustained high income levels may be falsely portrayed by comparing national income and imports at boom periods in the past. At a *stable* high income level speculative inventory accumulation would not occur, presumably, so that our demand for imported raw materials would be something less than it has been in the past when national income has been at a high level temporarily.⁸

The inferences for the postwar period that can be drawn from the prewar relation between American national income at a high level and the volume of imports needs to be further qualified in view of certain changes in the international economic position of the United States as a consequence of the war. Not a few products that were formerly imported are now domestically produced in large volume. Rubber is of course the outstanding example. But there are other products as well. Moreover, the United States will end the war with a large merchant marine. It will be less dependent upon foreign-owned tonnage and will therefore make smaller remittances on this account to other countries. What policy will be adopted for the maintenance of these industries on grounds of national security is not now clear. It is at least conceivable, however, that they will be maintained in operation and so offset the need for payments to other countries. The information is not available for estimating quantitatively how important such residues of wartime developments may be in relation to the total American balance of payments. But the direction of their effect upon the American balance of payments is perfectly clear.

⁸ It should be noted, however, that this conclusion implies that in the past inventory accumulation in imported raw materials has been almost wholly "speculative" in character. If, on the contrary, it was accumulation to support a level of production that was anticipated but was never attained or, at any rate, not for long, then the historically recorded relation between (certain) raw material imports and a high national income would be nearly correct for a *stable* national income at a high level. Certainly a higher level of sustained production requires a greater consumption of raw materials and, usually, a proportionate increase in the size of the inventory required as a permanent investment.

3. Factors Tending to Increase Imports when National Income Is Stable

There are of course favorable factors that will work in the direction of increasing imports at high and stable levels of national income in the United States.

It seems probable that a plateau of high national income, virtually free from depressions and peaks, would allow time for some important changes in taste and consuming habits to develop, and that some of these would react favorably upon imports. Just as it usually takes an individual some little time to adjust his consumption habits to a higher plane of income so also it probably requires some time for individuals and business firms collectively to adapt their spending habits to a high national income. To pass for a moment to a non-commodity import: foreign travel doubtless has an extremely high elasticity of demand in terms of income and, what is more pertinent in the immediate context, the desire to pursue it is greatly strengthened by having once experienced it. The man who has once traveled abroad is a more likely prospect for a travel agent than one who has never been. So also it may be with the purchase of quality woolens, fine china, handsome glassware, and Scotch whiskey. If national income is sustained at a high level it seems reasonable to suppose that the demand for imports of this kind would display a marked secular growth. In the past these have been luxury products which only high income groups consumed regularly and as a matter of custom and habit. But just as the war with its high average incomes has witnessed a relatively greater increase in the average buyer's demand for "quality merchandise" from the "better shops" so a persistence of a high national income might well mean a substantial upsurge in the demand for imported manufactured goods that in the past have only trickled in over the high tariff wall. Whether such goods are cheap or dear to the average buyer obviously depends upon his income. With a high average income that is expected to be maintained, quality goods might be imported in large volume.

It is usually argued in discussing these matters that travel expenditures by Americans are the most important single "import" having a high income elasticity of demand. Travel expenditures were a debit item in the American balance of payments in 1929

in the amount of \$483 million gross (net \$344 million). At the higher income levels that are often postulated for the postwar period they might well be two to three times this figure. But it is difficult to hold any firm conviction about such estimates because obviously so many uncertainties cloud the picture, at least for the early postwar years. With fairly stable conditions at home and abroad, however, it seems reasonable to suppose that travel expenditures would constitute a large debit item in the American postwar balance of payments.⁹

How all these factors would affect aggregate imports of goods and services at a sustained high national income one cannot foresee with any precision. It seems clear, however, that in several respects the problem is something more than projecting prewar relationships between (temporary) high levels of national income and the then volume of imports.

Whether as a people we have enough ingenuity and courage to provide ourselves with a stable, high national income is another question. But it is becoming increasingly obvious that a lot of striving towards that objective is to be expected after the war.

III. TARIFF REDUCTION, IMPORTS, AND EMPLOYMENT

THERE are few more speculative topics than trying to guess the probable modifications in the American tariff in the postwar period. The tariff has so long been a political question in the United States, with only the scantiest serious attention to its economic implications by Congress and the people at large, that one scarcely dares to hope that after the present war the question will be given the thoughtful consideration it deserves. Yet signs are in evidence that possibly a better day is coming. Perhaps it behooves us to examine the probable consequences of tariff reductions upon imports and domestic employment in at least general terms. Certainly present discussion cannot go beyond broad generalities since there is no way

⁹ With a larger American merchant marine and increased air travel abroad in American planes operated by American companies the debit item on foreign travel might be noticeably less than some of the more optimistic estimates that the writer has heard voiced.

of divining how effectively the various pressure groups and sectional interests that dictate tariff schedules will marshal their potential strength. Yet because the topic is so important there is a temptation at least briefly to explore the matter.

The essential economic problem raised by American tariff reduction after the war is how to give the rest of the world an access to the American market sufficiently large to make some appreciable difference in the world supply of dollar exchange without at the same time creating such internal maladjustments as to threaten the maintenance of high level of domestic employment. At least this is the problem as the writer views it. It goes without saying that for the United States to absorb more imports is to increase the supply of dollars available to the rest of the world: and to that extent the world abroad is benefited. But it is equally clear that in absorbing imports the internal adjustments imposed upon the American economy must not be so drastic or so sudden as to produce a slump in the United States. Hence while seeking to open the American market to foreign wares¹⁰ it is necessary to avoid inducing a depression within the United States.

With respect to the internal effects of scaling down the American tariff, two extreme situations are distinguishable. On the one hand we have the case where the imported goods would be largely in substitution for domestic products and the displacement in employment would be large and concentrated. On the other hand there would appear to be cases where at a high and stable national income the imported goods would mainly supplement current American production and consumption without displacing much domestic employment in the aggregate and perhaps very little in any one area. Let us consider these in turn.

1. Substitution of Imports for Domestic Production where Cost Differentials Are Large and Price Elasticities Small

The American producer of most agricultural commodities has had the domestic market reserved to him by tariffs and related

¹⁰ It does not matter now that the world as a whole probably would have been better off had the American tariff not been raised to such a high level. That is water over the dam from the point of view of future policy. The task ahead is to find the best solution in view of the *present* facts.

measures. Only in a drought or other instance of short supply do most agricultural crops flow in over the tariff. In general, the quantities imported are negligible in relation to the volume of domestic production as the following table for 1937 indicates.¹¹ In inter-

TABLE XVII

IMPORTS OF CERTAIN AGRICULTURAL CROPS IN RELATION TO DOMESTIC PRODUCTION, 1937

	<i>Bushels in Thou- sands</i>	<i>Value in \$000's Omitted</i>	<i>Bushels in Thou- sands</i>	<i>Value at Farm in \$000's Omitted</i>	<i>Value of Imports to Domestic Production Per Cent</i>
Corn.....	86,337	56,184	2,644,995	1,456,907	3.9
Oats.....	58	35	1,146,258	359,013	0.001
Wheat....	17,716	19,783	873,993	869,140	2.3
Barley....	10,384	9,564	219,635	122,090	7.8
Rye.....	207	181	49,449	34,030	0.5
Hay (Tons)	146,149	1,099	83,087 *	726,262 *	0.015

* Tame and wild hay combined.

preting the table, moreover, one must recall that in 1937 grain and other agricultural imports into the United States were much larger than they had been in previous years because of the drought in 1936. Indeed, imports of the more important agricultural products in 1937 were larger (9.5 per cent) as a percentage of total imports than in any year except 1935 (9.7 per cent), between 1929 and 1938.¹² Yet notwithstanding these heavy imports in 1937 they were in general very small in relation to the value of the domestic production as our table shows.

If the tariff on these crops were eliminated and their price were to fall, it is doubtful that their aggregate consumption in the United States would increase substantially. For the most important

¹¹ From *Statistical Abstract of the United States, 1938*. Percentages computed by the writer.

¹² See U. S. Dept. of Commerce, *The United States in the World Economy*, Washington, 1943, p. 52, table 5. In describing the effect of the drought it is written, "Imports of corn, for example, rose from 200,000 bushels in 1934 to 20,400,000 in 1935 and to 78,000,000 [a misprint clearly, for 87,000,000] in 1937, and fell again to only 400,000 in 1939. Wheat imports increased fivefold from 1933 to 1937. Imports of all grains, which in 1933 had been 0.8 per cent of total imports, rose to 3.1 per cent of a much larger total value of imports in 1935 and 1936." *Ibid.*

crops consumed more or less directly—wheat and sugar—their price elasticity of demand within the range likely to prevail is probably well below unity. Even with a high plateau of national income their price elasticity would probably not much increase. For corn and hay, whose important uses are in the production of hogs and dairy products respectively, a similar conclusion seems justified even though the price elasticity of demand for such products is reasonably high. Corn and hay as opposed to labor and other costs are not the dominant elements in the total cost of the final product in producing areas in the United States. In the main, the likelihood is that a reduction in the tariff on the most important farm crops mentioned in Table XVII would lead to a substitution of foreign for domestic producers as a source of supply rather than much expansion in total consumption.¹³ Wheat farmers, corn farmers, and raisers of sugar beets would have to curtail their output of these crops and turn to others, and perhaps a considerable number of them might have to abandon farming altogether. This is not to say that we would have to abandon the production of these crops entirely were the tariff on them removed. Rather their production with the United States would have to contract and perhaps some migration out of farming might be unavoidable.

The displacement of workers through the fall in price, the decline in the value of farm lands, the reduced farm purchasing power, etc., might raise serious problems as to their absorption in employment elsewhere. But until they were absorbed they would constitute a drag on the national income. Full employment would be harder to achieve and to maintain. Here we have a case where the fall in price consequent upon removing the tariff is not likely much to increase domestic consumption but which, at the same time, would create a grave adjustment problem. The depressed incomes would tend to be geographically concentrated and until the adjustment were completed these areas would be a depressant upon total employment and national income. No one can foretell how serious the displacement in employment would be because

¹³ The tariff rates on the products in the table are as follows: Corn, 20 cents a bushel, except from Cuba 10 cents; oats, 8 cents a bushel; wheat is subject to a quota arrangement; barley, 15 cents a bushel; rye, 12 cents a bushel; hay, \$2.50 per ton, but under certain conditions free. See U. S. Tariff Commission, *Changes in Import Duties since 1930*, Washington, 1943.

there is no way of knowing precisely either the price elasticity of demand for these products or the margin of the differences in cost between foreign and domestic sources of supply. If the price elasticity of demand were large and the cost differentials small, then the adjustments might not be serious. But *a priori* reasoning from familiar facts seems to suggest just the reverse.¹⁴

2. *Tariffs on Commodities Having High Income and Price Elasticities*

Consider now the alternative case of a product enjoying tariff protection but having a highly elastic demand in terms of price. Here the fall in its price from lowering the tariff leads to a substantial increase in its consumption. Some domestic producers are likely to be injured and perhaps some will have to retire from the market altogether. But because the fall in price substantially increases consumption and production there need not necessarily be any wholesale withdrawal from the domestic industry. There is here no wholesale substitution of foreign for home production because total consumption expands appreciably. While some firms show losses and some unemployment appears, neither need be large in relation to the industry as a whole. If the losses and unemployment are geographically dispersed the adjustment may not be difficult to achieve. For, in general, the same aggregate unemployment spread over a wide area so that not much appears in any one center is less serious than where the unemployment is geographically concentrated. Tariff reductions where these conditions are met—highly elastic demand in terms of price, a small contraction of total domestic production, geographical dispersion of

¹⁴ At a high national income level wheat products might indeed prove to have a *negative* income elasticity of demand, i.e., to be "inferior" goods in the technical economic sense.

There are of course some agricultural products which are not now imported into the United States at all but for which the price and income elasticity of demand is undoubtedly extremely high. Butter, meat, citrus fruits, nuts and fresh milk come to mind at once as falling within this category. But some of these are products where imports would react unfavorably upon prices and earnings in the home industry. At least this is generally alleged by those in the industries. In the writer's judgment the adverse effects would be much less than is usually argued. But he is pessimistic of the political possibility of getting tariff reductions on these products. Even during the war it has been politically impossible to remove the shackles from margarine.

the industry—may not occasion serious domestic deflationary tendencies.

What commodities would be likely to fit the foregoing conditions cannot be determined without analysis far beyond anything that can be attempted here. But the presumption would be that quasi-luxury goods in which the foreign product is similar to, but not identical with, the domestic product catering to the same need would afford numerous examples. Certain woolen goods, glassware, leather products, optical goods, etc., seem to fit the requirements reasonably well. Perhaps in many cases the specific products are not now being produced at all. They would have to be especially designed and styled for the American market by American experts working in conjunction with foreign manufacturers and producers. The potential imports which the United States could absorb without seriously depressing its own national income through displacements in employment may be more numerous than one might suppose, even though it is impossible to specify quantity, size and color from general information.

3. Tariff Reduction and Internal Adjustments

The foregoing remarks do little more than emphasize the general point that in the removal of tariffs in an effort to increase the world supply of dollars one cannot neglect domestic employment effects. Products which the United States would absorb in large volume if the tariff were lower and national income at a satisfactory employment level may be just those products which cannot be absorbed without necessitating drastic shifts in the distribution of domestic employment. These shifts may not be easily achieved under present conditions; "depressed areas" may act as a drag on the whole economy. A redistribution of domestic employment in the degree and of the sort required may not be effected easily. Yet possibly there are other products where the reduction of duties is less serious from the point of view of home employment. Insofar as possible these are the most promising imports to encourage both from the point of view of the United States and the world as a whole.

It goes without saying, of course, that whatever shifts of employment are a necessary consequence of greater imports can be the

more easily taken in stride if the United States can hold its national income at high levels by the successful application of expansionist policies. For on the one hand new jobs are more plentiful while on the other the affected industries may not have to decline absolutely but only cease to expand with the rising national income.

These prescriptions are easier to formulate in general terms than they are to administer as concrete policy. It is quite impossible to lower tariffs without injuring someone. And those injured can always point the finger at the cause of their injury. The beneficiaries of cheaper imports, on the other hand, are likely to be both less vocal and less aware of their new blessings. The result is that even in the postwar world at high levels of national income, tariff reductions will not be swallowed easily by those adversely affected, however few their numbers. And in American tariff history minuteness of size has rarely been a handicap in securing or maintaining "adequate protection."

Nevertheless from the general economic point of view and with respect to the welfare of the world outside of the United States a reduction in the American tariff is highly to be desired. Apart from agricultural products the necessary adjustments within the American economy are probably not serious enough to warrant retaining the American tariff at its present levels. And for reasons set forth in Chapter XIII below, the present offers unusual advantages with respect to timing. Certainly the writer would strongly support a program of American tariff reduction even though some adjustments in the American domestic economy were unavoidable. The gains would certainly exceed the costs even from the American point of view. And from the point of view of the rest of the world of which the United States is inescapably a part the benefits would be nearly unalloyed. Moreover, there is no other way of determining the absorptive capacity of the American market for foreign wares than by allowing them to come in at rates that are substantially more reasonable than those that now prevail. A creditor country that would draw income on its investments abroad must absorb imports.

IV. FOREIGN LENDING, IMPORTS, AND THE BALANCE OF PAYMENTS

THE two previous sections of the present chapter have considered the absorptive tendencies of the American economy with respect to imports of goods and services. In Section II we examined the relation between imports and high levels of national income in the United States on the assumption that present tariff schedules remained much as they are. In Section III we modified this analysis by assuming certain types of tariff changes and endeavored to consider the effect of these tariff changes upon home employment. But in Sections II and III alike we did not postulate any antecedent foreign lending.

The earlier chapters of the present volume were concerned with economic reconstruction and development and the relation of these to foreign borrowing by the countries undertaking such projects. We there examined the problems posed for borrowing countries with respect to their balance of payments in view of the nature of the real capital accretions that compose reconstruction and planned development. Some reasons were adduced for believing that, from the borrower's point of view, difficulties might arise in making sufficient exports available to meet debt service. These were seen to depend, among other factors, upon the character of the investment projects undertaken and the aggregate of total investment in relation to foreign borrowing. But throughout there was no consideration of the position of the lending country in relation to its capacity to absorb imports. If the borrower could pay, it was assumed that the acceptance of payment would raise no problems for the lending country. This assumption must now be examined. And since there is every reason to believe that the United States will provide the bulk of what foreign lending occurs after the war, the analysis is focused upon its case.

1. Alternative Rates of Foreign Lending and Their Relation to the American Balance of Payments

Unless a country is to go on indefinitely adding to its investments abroad, and at an ever-increasing rate, then eventually the in-payments for interest and return of principal will come to exceed the out-payments from fresh lending. How soon this stage will be reached depends principally upon the rate of interest and amortization schedule stipulated in the loan contract and the volume of fresh lending per time period, assuming no defaults by the borrowers. The lower the rate of interest and the longer the amortization period the greater the time interval necessary to reverse the flow of payments on capital account with any given rate of fresh lending. With a given interest and amortization schedule, the flow will be the sooner reversed the smaller the volume of fresh commitments. The net possibilities are numerous because the variables are capable of so many combinations.

The probable postwar position of the United States with respect to the outflow of fresh lending and the consequent inflow of service charges from these loans is obviously quite unpredictable. The rates of interest and other terms can be expected to vary widely from country to country, according to the projects or "developments" and whether they are financed on private or public account. The total volume of lending on any terms is indeed indeterminable until the political outlines of the postwar world are somewhat clearer than they are at present. These uncertainties are so grave that it may seem fruitless to analyze the problem at all.

Notwithstanding these difficulties one might argue that if any considerable volume of American foreign lending does occur it is likely to be large for a few years immediately after the war and then taper off to a much smaller level which can perhaps be assumed to remain steady for a somewhat indefinite future. It is worth examining the American balance of payments under these assumptions if only to provide some makeshift handles for a problem which is exceedingly difficult to grasp.

Let us assume that, apart from any commitments in times past, new loans are made at an (average) annual service charge for interest and amortization of 10 per cent, of which one-half is interest

and one-half is amortization.¹⁵ Let us assume further that lending starts one year after the war ends. In most instances we assume that the rate of lending does not reach its peak in the first year. The total sum lent over ten years in all six hypothetical cases is the same, 2,500. Let us now examine the implications of different time shapes of the stream of gross lending for the creditor country, here assumed to be the United States.

The following table and chart show six different rates of lending and how the balance of payments is affected positively or negatively.¹⁶ In each instance where the curve crosses the zero line we have the point in time at which service charges exceed the rate of new lending.

The chart indicates some of the direct consequences of different rates of lending. It should be repeated that the same aggregate sum, 2,500, is assumed to be lent abroad over the ten-year interval. Yet, the balance of payments development shows, notwithstanding, a number of variations. As one would expect, the less steady the rate of new lending the more violent the fluctuations in the balance of payments over time. If we take the extreme case of V, where the rate of lending rises from 100 in the first year to 600 in the third year and falls to 100 again in the seventh year, we see that the balance of payments changes from a positive of 550 in the third year to a negative 120 in the seventh year—a change of 770 in four years. By contrast we have Case VI where a constant amount of 250 is lent each year. Here the balance of payments (after the first year) declines steadily from positive to negative at a constant rate of 25 per year. Case III, which starts with a high rate of 600 which

¹⁵ This average rate may be thought to be too high and for some projects it may well be excessive. On the other hand, a 20-year amortization period is undoubtedly too long for many types of industrial capital equipment where technical developments are frequent and significant. An average of 5 per cent for amortization does not appear altogether unreasonable. The 5 per cent rate for interest is not much different from the rate at which the British Dominions were able to borrow abroad a quarter of a century ago and for that reason does not appear too high. One could the better assume an appropriate rate if there were some means of knowing where and for what purposes the investments were to be committed.

¹⁶ We are now concerned only with the effect upon the balance of payments stemming directly from the new lending. The *net* balance of payments will of course be determined by a variety of other factors. We also neglect here the induced demand for imports in the borrowing countries that may spring from increased activity therein occasioned by capital imports.

TABLE XVIII

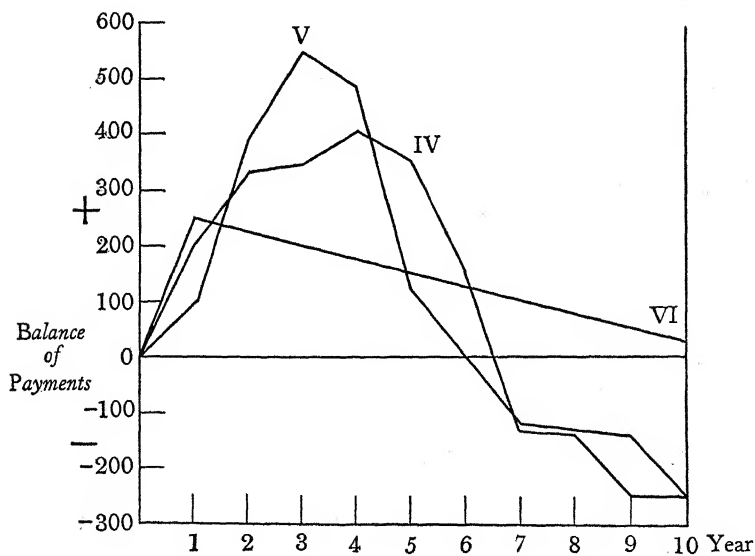
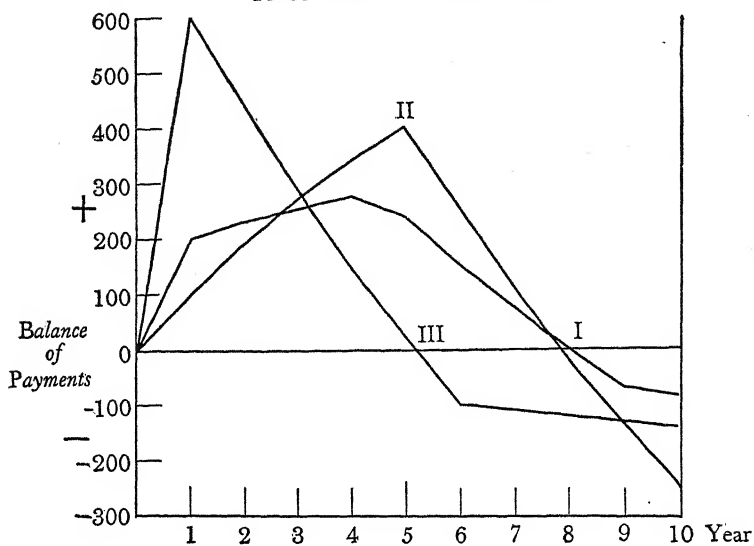
SIX RATES OF FOREIGN LENDING AND EFFECTS ON
BALANCE OF PAYMENTS

	Year									
	1	2	3	4	5	6	7	8	9	10
<i>Case No. I</i>										
Gross New Lending	200	250	300	350	350	300	250	200	150	150
Yearly Service Charge . . .	20	20	45	75	110	145	175	200	220	235
Net Balance of Payments	200	230	255	275	240	155	75	...	-70	-85
<i>Case No. II</i>										
Gross New Lending	100	200	300	400	500	400	300	200	100	...
Yearly Service Charge . . .	10	10	30	60	100	150	190	220	240	250
Net Balance of Payments	100	190	270	340	400	250	110	-20	-140	-250
<i>Case No. III</i>										
Gross New Lending	600	500	400	300	200	100	100	100	100	100
Yearly Service Charge . . .	60	110	150	180	200	210	220	230	240	250
Net Balance of Payments	600	440	290	150	20	-100	-110	-120	-130	-140
<i>Case No. IV</i>										
Gross New Lending	200	350	400	500	500	350	100	100
Yearly Service Charge . . .	20	55	95	145	195	230	240	250	250	250
Net Balance of Payments	200	330	345	405	355	155	-130	-140	-250	-250
<i>Case No. V</i>										
Gross New Lending	100	400	600	600	300	200	100	100	100	...
Yearly Service Charge . . .	10	50	110	170	200	220	230	240	250	250
Net Balance of Payments	100	390	550	490	130	...	-120	-130	-140	-250
<i>Case No. VI</i>										
Gross New Lending	250	250	250	250	250	250	250	250	250	250
Yearly Service Charge . . .	25	50	75	100	125	150	175	200	225	250
Net Balance of Payments	250	225	200	175	150	125	100	75	50	25

is maintained for three years but drops off to one-sixth of this amount in the sixth year, also requires a drastic shift in the balance of payments in a short time: from positive 600 to minus 100 in six years. Case II from plus 400 to minus 20 in three years is also suggestive.

Although the foregoing cases are all hypothetical and only a few of many such that might be postulated, they do nevertheless indicate the marked shifts in the balance of payments that can be imposed by different rates of foreign lending. In the first place there is the actual dollar amounts that are lent, that is, what is the "unit of lending" which amounts to 2,500 over the ten-year period. In the second place there is the relation between the balance of payments disturbance on account of capital movements and the other items in the balance of payments, i.e., commodity exports and imports, travel expenditures, etc. Even a violent oscillation

FOREIGN LENDING AND THE BALANCE OF PAYMENTS—SIX CASES



in the balance on capital account, e.g., Case II, or Case V, need not occasion serious difficulty if it is small in relation to the total balance of payments. Thirdly, it goes almost without saying that any given required change in the balance of payments on capital account is the more serious the shorter the time period in which it must be effected.

The U. S. Department of Commerce has made some interesting projections of exports and imports in relation to our national gross product. These projections indicate that if we assume a gross national product of \$175 billions in 1948 then "based solely on the average distribution over the interwar period as a whole, United States exports [in 1942 prices] might be expected to total around 7 billion dollars in 1948 out of a total supply of dollars amounting to 10.3 billion." Commodity imports are reckoned at 6.3 billion.¹⁷ Although these figures may be too large, as the writers of the study emphasize, the calculations do give some indication of the volume of exports and imports to be expected under not altogether unreasonable assumptions. Let us therefore compare these estimates with our hypothetical tables.

Let us assume that over the ten-year period beginning one year after the war ends new American investments abroad amount to \$25 billions in 1942 prices. In that instance the items injected into the balance of payments because of foreign investment are significantly large during the period of capital outflow. If we take Case III, exports in the first year instead of being \$7 billion would have to be \$7 plus \$4 or \$11 billion.¹⁸ In Case V the distortion in the third year would be even greater. The steady rate assumed in Case VI is of course the least disturbing because the increment in no year exceeds \$2.5 billions. Yet even here the increase in exports required would be 35.7 per cent in the first year.

The adjustments required in imports as the flow of payments on capital account changes from active to passive is of course less disturbing because the service charges at the rate assumed

¹⁷ "Foreign Trade After the War." Washington, 1943, pp. 10, 15. The year 1948 is a hypothetical postwar year not necessarily the calendar year 1948.

¹⁸ We here assume that what is borrowed leads to an increase in American exports of the same amount to the rest of the world in the year in which it is borrowed. This may well not be the case. But the lag or lead cannot be estimated and the assumption simplifies the calculations. It should be emphasized that the rise in exports might precede the long-term borrowing. Cf. Appendix.

(10 per cent) are small relatively to total imports. If we neglect the possibility of an upward trend in imports and national income and assume that the \$6.3 billion import figure remains over the ten-year period, then the largest passive balance on capital account is \$1.4 billions (Case V in the ninth year), which is a 22.2 per cent increase. In the other cases, unless one assumes that gross new lending drops to zero, the passive balance on capital account is not significantly large in relation to the assumed \$6.3 billions of imports.

These calculations, it should be emphasized, are on the assumption that aggregate foreign investment after the war amounts to \$25 billions over a period of ten years. If the total should be larger, then of course the effects upon the balance of payments would be correspondingly greater. And, conversely, if the total lendings abroad are smaller.

2. *The Inversion of the American Balance of Payments. The Bretton Woods Scheme*

These hypothetical examples emphasize that the real problem from the point of view of the United States is the domestic adjustment required in shifting from an active to a passive status on capital account in a short interval. If we should invest abroad at an average rate of 2.5 to 3 billions of dollars a year over the decade following the end of the war the stimulus to our exports would be large indeed. In 1929 American exports were \$5.24 billions but by 1937 had fallen to \$3.349 billions. Let it be recalled that the Department of Commerce projects exports of \$7 billions for a gross national product of \$175 billions. Capital exports of \$2-\$3 billions annually would mean an increase in any of these export figures—\$3.349 billion or \$5.247 billion—by a significant percentage. But if after a few years of high rates of lending gross foreign investment falls off to a much lower level, then the marked expansion of exports would be short-lived. A sharp upturn for a few years would be followed by a sudden drop to lower levels. And eventually the capital account would turn passive.

From the point of view of the domestic economy such rapid shifts raise serious problems of adjustment. A brief rise of 40-60

per cent in total exports above their long-term level is not easy to retreat from without creating serious disequilibria. The agents of production are not so mobile that shifts of this magnitude are easily accommodated. Some of the upward adjustment would doubtless be effected by rising prices. But to this degree the benefit to foreign countries is correspondingly diminished. However, the *decline* in exports would impose the really painful internal shifts of economic resources. Subsidies in various forms would be politically, if not economically, unavoidable. Finally, the stage of passive balance on capital account would require the American market to absorb ever larger quantities of imports relative to exports. This would not necessarily imply an absolute decline in American exports; but it would involve a decline in exports relative to imports and national income.

The figures used in the foregoing calculations—gross new investment abroad by the United States of \$2.5-\$3 billions a year for a decade—are considerably larger than the United States' commitment under the proposed International Bank for Reconstruction and Development.¹⁹ The authorized capital of the Bank was set at \$10 billion at Bretton Woods. Of this amount the United States would subscribe \$3.175 billion of which only 20 per cent (\$635 million) would be for the Bank's own loan fund; the remainder of the subscription is for the guarantee fund. Under the proposed arrangements, the total loans and guarantees for which the Bank may be committed are limited to \$10 billion. Hence the sums directly involved are substantially below those we have employed in our hypothetical schedules. Our schedules are not necessarily altogether absurd on this account however. For one of the avowed purposes of the Bank is to promote loans on private account without bank participation in any direct fashion.²⁰ And apart from such portfolio loans independently negotiated there may well be a considerable volume of direct investment abroad by American enterprise and corporations. It should also be mentioned that the United States' contribution of \$2,750 million to the International

¹⁹ Cf. Goldenweiser, E. A., and Bourneuf, Alice, "Bretton Woods Agreements," *Federal Reserve Bulletin*, September, 1944, pp. 850-870.

²⁰ Indeed it would appear that the Bank is considered by many as a means of providing only those loans which could not be arranged under any other auspices.

Monetary Fund is, from some points of view, a means of establishing a claim in American dollars in favor of the rest of the world not unlike a long-term investment. Consequently in a broad over-all view our schedules may not be far wide of the mark.

The foregoing remarks are disappointingly general. But until both the volume of American postwar foreign investment and the level of national income become somewhat less open to speculation than they are at present few precise estimates can be made. One point, however, does seem clear: A steady stream of gross foreign investment is much to be preferred to one with a pronounced peak. The drastic shifts that the latter imposes would not be easy for either lender or borrower. The large adjustment from an active to a passive balance on capital account in a few years seems too great a change to be accommodated without hardship and confusion.

V. THE UNITED STATES AS A CREDITOR NATION

THE contention is commonly voiced nowadays that after the war the United States must be prepared to accept the role of a creditor nation in a complete sense. It must lend abroad on a large scale. It must be willing to accept imports and to abandon its traditional protectionist policy. And the argument is usually reinforced by reference to Great Britain and its commercial policy in the nineteenth and early twentieth centuries. Yet the United States occupies a position in the world economy in the fifth decade of the twentieth century that differs in important respects from that of Great Britain in the nineteenth century. Since these differences are pertinent to the problem of the United States as the world's creditor, let us examine them briefly.

The point of prime importance is that, measured by almost any economic criterion that one cares to employ, the United States is large and economically diversified relative to other countries. It is a large agricultural nation, the largest industrial nation, the largest exporter, and the second largest importer of the world's goods and services. For the nine major commodities—cotton, wheat, sugar, rubber, silk, copper, tin, tea, and coffee—the United States'

share in total consumption (for 1927 and 1928) was "39 per cent of the total for the 15 most important commercial nations."²¹ It is also the world's most important exporter accounting for 15.6 per cent of world exports in 1929 and 13.2 per cent in 1937 as against 11.7 per cent for the United Kingdom and 9.4 per cent for Germany in 1937. In the same year the United States was the second largest importer at 11.3 per cent of the world total, being exceeded only by the United Kingdom at 18.6 per cent.²² As a Department of Commerce study has said: ²³

As a rough measure, however, these figures indicate that national income in the United States in 1929 was as high, in terms of dollars, as in 23 foreign countries combined, including the United Kingdom, Germany, and France. . . . In terms of "real income," the relative share of the United States was, of course, far less because of the generally higher prices of goods and services in this country; nevertheless, the comparison serves to illustrate the importance of American purchasing power in the functioning of the world economy.

The bulk of the United States in the world economic structure, however, is not confined to national income and industrial production indices. As an agricultural and raw material producer it also ranks high. The following table shows the percentage share of the United States in total world production of a number of important raw materials and agricultural crops.²⁴

The fact that the United States is both the dominant industrial nation and an important primary goods producer places it in a peculiar garb for the role of chief creditor nation in the traditional sense. Its capacity to lend large sums abroad without sacrifice to its domestic welfare is abundantly clear. Its capacity to absorb imports in sufficient volume to permit its debtors to service their loans is not so obvious. As a large raw material producer it is capable of supplying much of its own needs without resort to foreign suppliers. As the dominant industrial nation it not only can care for its large domestic market but, on an efficiency basis, it can also sell abroad many of its industrial products at prices as low or lower than similar products from other nations. The amazing insistence

²¹ *The United States in the World Economy*, p. 29.

²² *Ibid.* and U. S. Dept. of Commerce, *Foreign Commerce Yearbook*, 1938.

²³ *The United States in the World Economy*, pp. 29-30.

²⁴ From *Foreign Commerce Yearbook*, 1938.

TABLE XIX
PERCENTAGE SHARE OF THE UNITED STATES IN TOTAL
WORLD PRODUCTION OF CERTAIN RAW MATERIALS
AND AGRICULTURAL CROPS

	1931-35 Average	1937
<i>Agricultural Product</i>		
Wheat.....	16.0	22.8
Rye.....	1.8	5.4
Barley.....	9.3	10.1
Oats.....	22.4	25.8
Corn.....	51.4	53.5
Potatoes.....	4.9	3.8 (1936)
Sugar Beets.....	12.6	9.7
Tobacco.....	26.0	25.4 (1935)
Cotton.....	49.0	49.1
Wool.....	11.9	11.6 (1936)
<i>Non-Agricultural Product</i>		
Crude Petroleum.....	60.9	62.6
Pig-Iron.....	28.1	36.7
Copper.....	23.3	32.4 (1936)
Lead.....	22.3	24.9
Zinc.....	27.4	31.2

of the rest of the world for American manufactured goods whenever dollar exchange could be obtained during the troubled 'thirties emphasizes the technical efficiency of the American industrial production.²⁵ And the record during the present war only serves to emphasize the same point.

The traditional answer to this problem is that the United States must abolish its tariffs to absorb enough imports from abroad to allow the service and possible repayment of foreign lendings. This answer is not altogether satisfactory. In the first place the shift in resources forced upon the domestic economy would be drastic and

²⁵ Cf. "The technical superiority which marks many American manufactures will continue to enhance post-war possibilities for American exports. A number of these products have achieved standards of performance and relative cheapness in cost which can scarcely be matched abroad. Largely because of the huge internal market in this country, American industry excels in the production of many types of producers' and consumers' goods most actively demanded by expanding economies. Much the same goods are also required for maintaining the economic structure of more mature and less rapidly growing countries." U. S. Dept. of Commerce, "Foreign Trade After the War," Washington, 1943, p. 16.

severe in some sectors, e.g., textiles. The greatest care would have to be used to prevent a serious downturn in income and employment from developing out of these shifts imposed by the need to absorb imports on a large scale. We have touched on the tariff question in Section III of the present chapter and need not repeat here the considerations that were there advanced. It is clear of course that without tariff changes fewer shifts would be necessary. But by the same token fewer imports would be absorbed and hence a smaller volume of loans could be negotiated with a reasonable expectation of not being defaulted.

In the second place it is far from clear that the removal of tariffs would achieve such a readjustment of specialization and production at home and abroad as to eliminate the strong preference of Americans and foreigners for American made goods, especially those goods which take their attraction from technical or style factors which are not easily duplicated and which have bulked large in American exports in the past. The writer would concede that for identical goods that can be produced at home and abroad—the wine and cloth illustrations of classical theory—the law of comparative advantage demonstrates that trade will cause international specialization to the benefit of all. But the classical law assumes that *identical* goods are bought from one supplier or another; and that, therefore, the lowest price is what counts. Machinery, clothing, transportation equipment, scientific apparatus, and a host of other goods are not bought from one source rather than another altogether because of their price. In fact the money price may be one of the minor considerations. In cases of this kind a reaffirmation of the law of comparative advantage is beside the point.²⁶ American buyers might still prefer American products to foreign products even though the foreign products were demonstrably cheaper in price and, accordingly, should be an object of specialization abroad and imported into the United States. And there may still be a strong demand for American automobiles, farm machinery, or machine tools abroad long after their export should

²⁶ The relevance of this qualification to the law of comparative advantage to the traditional theory of international trade deserves more space than can be accorded to it in the present context. It seems to the writer that it qualifies the applicability of the law of comparative advantage to many products in present-day international trade.

have ceased. In other words, it is not inevitable that even abolishing American tariffs will assure that the American balance of trade will turn passive in accordance with the needs of a creditor nation that is collecting income on its foreign investments.²⁷

Of course no one can know the answer to a question of this kind. But in the writer's judgment it is *not* axiomatic that a sudden or gradual removal of many American tariff duties on imports would supply enough dollar exchange to allow the United States to assume the position of a large creditor nation.

The United States is a territory which is not dependent upon the rest of the world for its food and raw materials. It is a territory with large natural resources, highly developed primary production, and an industrial plant whose efficiency is second to none. Hence its capacity to absorb imports even in the absence of tariff protection is perhaps limited and selective. Parallels drawn from the history of Great Britain and other European nations as large creditors are not always relevant. As Joan Robinson, the eminent British economist, recently put it in discussing the international currency proposals: ²⁸

Each, of course, is merely a scheme to regulate the exchanges, and, in the nature of the case, a currency scheme cannot solve the fundamental problems of international disequilibrium. At best it can do no more than create a setting favourable to a solution. In particular, the problem which lies before the United States is what to do with her prodigious productive capacity—whether to use it for home consumption, to use it for the development of other countries or to waste it in unemployment. No amount of ingenuity in devising currency schemes can influence the main issue, which

²⁷ The same point of view has been expressed elsewhere. For example, "During the twenties and thirties, this country was roundly criticized for failing to 'act like a creditor nation' and develop a passive balance of payments on current account. This point of view was wide of the mark. United States tariff schedules were open to attack on the ground that they kept the standard of living in the United States and abroad at a lower level than necessary. A lower schedule of import duties, however, would not have corrected the tendency for the balance of payments on current account to be active. Because of the high elasticity of demand abroad for United States industrial products, an increase in sales to the United States resulting from a tariff reduction would quickly be offset by an equal or greater increase in foreign purchases of automobiles, typewriters, refrigerators, machine tools, agricultural implements, etc." Kindleberger, C. P., "Planning for Foreign Investment," *American Economic Review*, Supplement, March, 1943, p. 350.

²⁸ "The International Currency Proposals," *The Economic Journal*, June-September, 1943, p. 169.

cuts deeply into the internal economic position of creditor countries. English economists often point somewhat smugly to the history of the nineteenth century, and claim that when Great Britain was the leading surplus country she always played the game according to the rules and lent her surplus lavishly for the development of backward or unpeopled continents. This may well be true. But it was not superior benevolence and wisdom, or superior insight into economic principles which guided her policy: it was rather the facts of geography. With population growing and industry expanding in a narrow space, Great Britain needed the development of sources of raw materials, and, even when individual rentiers lost their money, her foreign investments were an excellent speculation for the nation as a whole. For the United States, with her wide range of primary production at home, there is no such unified national interest to be served, and no solution of her problem which will not cause internal conflicts. To judge by recent experience, purchasing power inside the U.S.A. cannot be maintained at a level commensurate with productive capacity except by huge Government expenditure, which raises political opposition, while lending abroad is objected to as mere charity.

It appears that the problem the United States must solve, and which is receiving inadequate attention in current discussion, is how, and at what cost, can it increase its absorption of imports. There is no doubt of the "ability" of the United States to lend abroad in the sense that it can make dollar balances available to other countries and that it can supply the exports for which these dollar balances will be spent. But how and at what sacrifice the United States can accept payment (if it insists upon being paid) is a question whose answer is far from clear. It can arrange for foreign lending without serious difficulty. And it is conceivable that the difficulties considered in Part One are manageable on the part of borrowers. But will it be easy for the United States to accept payment without drastically reconstituting the composition of its domestic industry? This is the crux of the problem.

From the point of view of the rest of the world, dollar exchange with which to buy American goods is much desired. American products can aid reconstruction and economic development. But to avoid creating a "transfer problem" of major proportions, would it not be wise to avoid large-scale lending abroad after the war and instead to start at once to test the capacity of the American market to absorb imports by lowering the American tariff? As will be emphasized in Chapter XIII, circumstances are not likely soon again to be more favorable, from the domestic point of view, than

they are at present. Moreover, increased imports would be a partial check on the dangers of an inflationary situation in the United States in the latter days of the war and the early postwar period. If the United States can absorb substantial imports at lower tariff rates, then other nations will purchase American goods to aid reconstruction and industrialization. Well and good. But it seems a shortsighted policy to whoop it up for foreign lending on a huge scale after the war because it will increase American exports, without at the same time inquiring what imports the United States will absorb and in what volume as a necessary consequence of accepting service charges on foreign loans. From the point of view of the domestic economy exports are no better than pouring merchandise into the sea beyond the twelve mile limit unless imports are taken in exchange. Foreign investment implies a disposition and a capacity to absorb imports at a later date. Given its present industrial pattern and an economy that for political and economic reasons is less than highly flexible in its several parts the United States may not find it simple to slip into the role of a mature creditor nation.

// INTERNATIONAL BALANCES AND THE NEED FOR LOANS WHEN PEACE COMES

THE two previous chapters have been concerned with the effects of international investment after the war by the United States during the stage of capital export and the stage of return flow of capital which follows later. The endeavor was to analyze the probable consequences for the American economy in each of the two stages.

When the war ends, however, the international financial position of the countries of the world will be markedly different from what their individual positions were in 1939. In some degree these changes measure the need for American foreign lending after the war has ended. Thus it is worth examining the broad character of these changes from this point of view even though full details cannot be ascertained while the war is still in progress.

Before beginning with these problems, which are the main concern of the present chapter, we interpose a brief section on the American participation in international lending after World War I. That interval is not without relevance to the conditions likely to prevail at the conclusion of the present war.

I. FOREIGN LENDING AND THE AMERICAN BALANCE OF PAYMENTS AFTER WORLD WAR I

THE Armistice which concluded the first world war in 1918 found other countries heavily in debt to the United States. These were the "war debts" which became such a bitter political issue here and abroad. When the Versailles Treaty with its "guilt" clause

was concluded, Germany had agreed to pay reparations to the victorious powers covering the "costs of the war."¹ In terms of the balance of payments between Germany, the Allies, and the United States the result was that Germany, in effect, had to remit sizable sums to the United States. The amount that Germany had to remit as reparations was not identical with the sums the Allied powers had borrowed in the United States. The capital sum of reparations (as first determined) was about 135 billion gold marks. The war debts to the United States were something over \$11 billions. But brushing aside these discrepancies in a broad view, the net result was that the United States was to receive, and Germany was to pay, large capital sums on account of war debts and reparations.

The reparations imposed upon Germany were, in effect, a forced loan from Germany to the Allies and thence to the United States, except that the "loan" was not to be repaid to Germany. But its effect upon the German balance of payments was in most respects the same as heavy lending abroad extending over a great many years. There was to be a heavy outflow of capital which, after some intermediate meandering was to pour into the United States. If we recall the discussion in Chapters VI and IX, this meant that the United States would normally be expected to receive payment of the war debts in the form of increased imports. German exports would rise; American imports would rise. The money transfer would be converted into a "real" transfer.

The actual course of events, however, was quite different. In the first few years after the Armistice, European industry was crippled and operating at a low level of output;² the demand for consumption goods and production goods from abroad was brisk, particularly when credit was available. As a consequence there was a boom in American exports rather than a heavy flow of imports into the United States. As the League of Nations has written:³

The import surplus of Continental Europe from the United States—\$6.2 billion or half of the total import surplus of \$12.4 billion—was equal to

¹ The actual sum to be paid was not fixed in the Versailles Treaty itself but by the Reparations Commission in April, 1921.

² See Table XI, p. 54.

³ *Europe's Overseas Needs, 1919-1920, and How They Were Met*, pp. 23-24; notes omitted.

nearly 90% of the total recorded export surplus of the United States in the two years 1919 and 1920 (\$6,996 million). The net import surplus of Continental Europe from the United Kingdom of \$2.4 billion—or, if allowance is made for commodities recorded as imported from the United Kingdom but originating elsewhere, perhaps \$1.6 billion—is remarkable since the United Kingdom herself had an unusually large import surplus of 11,000 million in 1919 and 1920 combined, or roughly \$4.1 billion.

The heavy exports from the United States in 1919 and 1920, the first two postwar years, are perhaps not surprising in view of Europe's needs. Nor is one startled to read that these heavy imports were financed, on the whole, by loans: about \$4.0 billion on long-term and \$2.7 billion on short-term. There appears to have been a net outflow of short-term capital from the United States of about \$1,655 million from the end of 1918, until the middle of 1921. United States government loans in 1919 and 1920 to European countries seem to have been about \$2.0 billions.⁴ In other words, in the early postwar years the United States did not increase its imports as the international balance of payments position required, given the war debt and reparations obligations; on the contrary, it increased its export surplus and provided dollar loans to Europe to finance their acquisition.

One might have supposed that after the immediate postwar problems of distress and misery abroad had been cleared out of the way that American lending abroad would have declined and that the United States would have begun to absorb large imports in accord with her creditor status. But such was not to be the case. American sentiment in agriculture and industry alike was for pushing exports. There was no disposition to lower tariffs. The bankers often tumbled over one another in their eagerness to underwrite foreign borrowings. The result was that American exports did not decline relative to imports and the export of American capital continued.

New issues for foreign account floated in the United States rose from \$317 millions in 1923, to \$825 in 1924 and 1925, to \$921 millions in 1926, \$1,114 millions in 1927, and \$1,019 in 1928. In 1929 they fell off to \$415 millions. The *net* outflow of capital on long- and short-term account was less, although there appear to

⁴ *Ibid.*, pp. 30-31.

be no reliable estimates for the outflow occasioned by direct investments abroad.⁵ And at least partly because of this lending abroad, exports remained in excess of imports and the balance of payments on current account continued positive. As for Germany, it is said that over two-thirds of her long-term foreign borrowings, amounting to 6 billion marks in the period 1925-1929, came from the United States.

The transition of the United States from a heavy exporter to a heavy importer as befitting a creditor nation could perhaps not be expected to be achieved immediately nor without some painful adjustment.⁶ Yet it is doubtful if, in retrospect, there was much to be gained from fresh lending after 1923 which piled up the creditor claims of the United States against the rest of the world from a figure which debtors were already finding it difficult to meet. A scaling down was probably more in order: less new lending, an increased absorption of imports, and a relative shrinkage of American exports.

It would be erroneous to charge the events after 1929 wholly to the virtual cessation of American foreign lending after 1928. Yet it was a contributory factor. And in the succeeding years American investments abroad declined heavily in value through defaults, confiscations, and repudiations. Exclusive of the war debts, American portfolio investments abroad declined from \$7.2 billions in

⁵ The capital transactions between the United States and foreign countries between 1919 and 1939 are given in Appendix table III in *The United States in the World Economy*, Washington, U. S. Dept. of Commerce, 1943. The net outflow of capital on long- and short-term account from the United States is there reported for the years 1923-1929 as follows in millions of dollars: 1923-78; 1924-581; 1925-676; 1926-307; 1927-452; 1928-1,195; 1929-282. The main offsetting items were acquisition of American securities by foreigners and banking and brokerage balances. Let it be recalled that direct investments abroad are not included in these estimates. In *ibid.*, p. 214, it is stated that from December 31, 1918-December 31, 1929, known new direct investments abroad have been calculated at \$1,766 millions. But this figure is undoubtedly an understatement of the facts.

⁶ The view has been well expressed as follows, "For the longer run, however, the United States was confronted with a most perplexing problem of readjustment, the difficulties of which were often not adequately grasped either by the authors or the critics of this country's policies. The problem may be stated as follows: The very forces that had transformed the United States in a few war and post-war years into a great creditor nation imposed enormous difficulties in the way of an early adaptation to that position through a change in the balance of trade." *The United States in the World Economy*, p. 147.

1930 to \$3.8 billions in 1939. Direct investments seem to have declined from about \$8.0 billion to \$7.0 billion in the same period. On both long- and short-term accounts the net creditor position of the United States declined from \$8.8 billion to \$1.8 billion.⁷

The story which begins with hopeful credits and ends with wholesale write-offs is not an encouraging one. It is at least questionable whether the loans contributed more than they took away from international peace, welfare, and the betterment of mankind at home and abroad. Certainly they left a trail of bitterness, suspicion, and bad-will in borrowing and lending countries alike.

II. THE INTERNATIONAL BALANCE OF PAYMENTS AT THE END OF THE WAR

THE international balance of payments at the conclusion of the current war will present a complex picture. Old relationships will have been shattered. New obligations will have been incurred. And at this writing the relative magnitudes of the sums involved and the directions of the obligations are confidential and secret from all but high government officials. A few scraps of information are available, however, and these piece together into a pattern whose broad outlines are nearly discernible.

1. *Lend-Lease Exports*

Under the stimulus of lend-lease financing American exports in 1944 may reach the astounding total of \$15 billion. This contrasts sharply with exports of \$3.3 billion in 1937 and \$5.1 billion in 1929, the two largest years for American exports between 1921 and 1939. Probably some \$12 billion of exports in 1944 will be under lend-lease arrangements. Up to the end of February, 1944, over 70 per cent of the lend-lease shipments, amounting to more than \$17 billions in total, went to the United Kingdom and Russia.

⁷ *Ibid.*, p. 123. The foregoing is of course a highly abbreviated account of the international economic changes involving the United States in the period following 1918. It is to be hoped that its brevity has not unduly distorted the picture. For more comprehensive discussions of this important interval the reader should consult the quite extensive literature,

The following table shows the distribution of the shipments by periods and by groups of countries.⁸

TABLE XX
LEND-LEASE EXPORTS TO ALL COUNTRIES
(Millions of Dollars)

	<i>Mar. '41 to Feb. '42</i>	<i>Mar. '42 to Feb. '43</i>	<i>Mar. '43 to Feb. '44</i>	<i>Total</i>	<i>Per Cent of Total</i>
United Kingdom....	756.2	2,221.2	4,329.0	7,306.4	42.5
U.S.S.R.....	70.3	1,634.1	3,035.0	4,739.4	27.6
Africa, Middle East and Mediterranean Area.....	146.5	781.3	1,557.4	2,485.2	14.4
China, India, Aus- tralia and New Zealand.....	93.0	724.0	1,108.7	1,925.7	11.2
Latin America.....	.7	52.8	82.4	135.9	0.8
Other Countries.....	43.8	175.1	384.1	603.0	3.5
Total.....	1,110.5	5,588.5	10,496.6	17,195.6	100.0

Some forty-five countries were listed in early 1944 as eligible for lend-lease assistance. And as might be expected, the kinds of commodities delivered to each were not of the same relative importance.⁹ The ultimate disposition of these balances, which are expressly stated not to be loans in the customary sense, is, of course, a matter that is yet to be discussed and decided. All that is certain at the minute is that the agreements provide that the settlements shall be "such as not to burden commerce between the two countries, but to promote mutually advantageous economic relations between them and the betterment of worldwide economic relations."¹⁰ But such broad language tells very little about how the lend-lease obligations will affect the international balance of payments after the war. Until some decision is reached concerning their disposition, however, they will probably be an unsettling factor in postwar trade and capital transactions.¹¹

⁸ *Fifteenth Report to Congress on Lend-Lease Operations*, Washington, 1944, p. 50.

⁹ *Ibid.*, pp. 49, 54-55. Not all were countries in the usual sense of sovereign authorities.

¹⁰ Article VII of the Mutual Aid agreements.

¹¹ From the point of view of the United States an additional point, quite apart from the balance of payments problem, should be mentioned. Lend-

2. *The Growth of Foreign-Owned Dollar Balances*

Notwithstanding the operations of lend-lease it is worth noting that foreign banking funds in the United States have grown significantly since 1939. At June 30, 1944, total foreign banking funds in the United States are reported at \$5,508.6 millions of which \$3,299.0 millions are "official" funds and \$2,209.6 are "other" funds.¹² In other words, foreign banking funds in the United States at June 30, 1944, were slightly more than 30 per cent of the total of lend-lease shipments up to February 29, 1944. But of course these are aggregates; there is presumably no close coincidence between countries receiving lend-lease assistance and having dollar balances available.

There appear to be no detailed figures available to the public showing the distribution of these foreign-owned dollar balances between countries, though the following has been reported on their growth since December, 1941.¹³

TABLE XXI
FOREIGN-OWNED DOLLAR BALANCES
(Deposits and Earmarked Gold at Selected Dates)

	Dec. '41	Dec. '42	Dec. '43	Feb. '44
Foreign Deposits				
In Federal Reserve Banks....	774	806	1,512	1,551
In Reporting Member Banks..	883	736	824	810
	<u>1,657</u>	<u>1,542</u>	<u>2,336</u>	<u>2,361</u>
Earmarked Gold.....	2,215	2,674	3,477	3,493.5

lease has meant an enormous expansion of American exports of commodities other than munitions, about \$4.5 billions of industrial materials and products, and about \$3.5 billions of agricultural products. In other words, during the war these industries have expanded to a degree that can hardly be expected to persist after its end unless lend-lease operations are continued. But is this feasible, and if not, what steps are to be taken to contract output?

¹² *Federal Reserve Bulletin*, October, 1944, p. 1024 n. Earmarked gold held for foreign account at the Federal Reserve banks as of August 31, 1944, was \$3,806.2 million. *Ibid.*, p. 980.

¹³ From the National City Bank of New York, *Letter*, March, 1944. The figure for ear-marked gold for end of February, 1944, has been added from the *Federal Reserve Bulletin*, April, 1944, p. 362 n. The following table from *The United States in the World Economy*, p. 23, shows a distribution of June, 1942.

TABLE XXII
FOREIGN-OWNED GOLD AND SHORT-TERM ASSETS IN THE
UNITED STATES IN JUNE, 1942 ¹⁴
(Millions of Dollars)

<i>Groups of Countries</i>	<i>Earmarked Gold</i>	<i>Deposits and Other Banking Assets</i>	<i>Total</i>
Enemy Countries.....	24	160	184
Enemy-Occupied Countries ¹⁵	1,269	1,225	2,494
Other Blocked Countries ¹⁶	848	975	1,823
Other American Republics.....	322	605	927
All Other Countries.....	4	1,115	1,119
Total.....	2,467	4,080	6,547

While no quotable figures showing the distribution of foreign-owned dollar balances country by country are available, Table XXIII relating to the Latin-American countries is not without interest.¹⁷

TABLE XXIII
GOLD AND FOREIGN EXCHANGE RESERVES
(Certain Latin-American Countries in \$ Millions)

	<i>End of 1939</i>	<i>End of 1942</i>	<i>End of 1943</i>
Argentina.....	592	721	1,088
Brazil.....	67	238	525
Mexico.....	34	72	250
Cuba.....	22	127	226
Uruguay.....	75	95	146
Colombia.....	26	62	114
Venezuela.....	52	76	101
Chile.....	36	56	85
Peru.....	19	31	35
Bolivia.....	5	21	22

¹⁴ Deposits and other banking assets are preliminary totals computed from the Treasury census of foreign property in the United States as of June 14, 1941.

¹⁵ Plus Finland.

¹⁶ Including China.

¹⁷ From the National City Bank of New York, *Letter*, April, 1944.

3. *The Growth of Sterling Balances*

The conduct of the war and the sources from which supplies have been drawn have led to an accumulation of foreign-owned sterling balances in London which will further complicate the international balance of payments problem. The following table shows the heaviest accumulation has been in favor of India but Egyptian balances also show a substantial growth—nearly five-fold.¹⁸

TABLE XXIV
LONDON BALANCES OF STERLING AREA
(In Millions of Pounds Sterling)

	Dec. '39	Dec. '42	Dec. '43
<i>Sterling Area</i>			
India: Reserve Bank.....	86	358	644
Canada: Interest Free Loan (N.A.) *		159	159
Eire.....	75	125	147
Egypt: National Bank....	22	83	106
Others.....	82	228	328
Total.....	265	953	1,384
<i>Other Countries</i>			
Argentina: Central Bank.. (N.A.)		19	54
Brazil: Banco do Brasil... (N.A.)		(N.A.)	30 (est.)
Uruguay..... (N.A.)		(N.A.)	4
Grand Total.....	265	972	1,472
Dollar Equivalent.....	1,000	3,888	5,888

* N.A.—Not Available.

This huge total of sterling balances—say, roughly £1.5 billions—is, however, unquestionably an under- rather than an overestimate.¹⁹ At Bretton Woods Lord Keynes is reputed to have quoted £3

¹⁸ From the National City Bank of New York, *Letter*, June, 1944.

¹⁹ As stated in *ibid.*, "This total is understated. It does not include, for example, balances of the Belgian Congo and Iceland—both sterling area countries—nor those of the Dutch and French possessions included in the sterling areas until this spring. Nor does it include the sterling balances of many non-sterling area countries, such as Canada, Sweden, Turkey, Portugal, or sterling earnings and compensation for shipping losses of the Norwegian, Greek and Dutch merchant marines. The Bank of Portugal alone holds foreign exchange equivalent to some \$500 millions, some of which undoubtedly is in sterling."

billion in discussing the British short-term obligation. But let us accept £2 billion for discussion purposes.

The improvement of India's international economic position is in reality much more thorough-going than the growth in its sterling balances would indicate. For in addition to accumulating sterling India has paid off (by repurchase) most, if not all, of her foreign-held debt obligations. India is likely to emerge from the present war a creditor rather than a debtor country. Some similar liquidation of foreign debts in sterling may have occurred in the case of other countries in the sterling area. Unfortunately at present writing the information is not publicly available for inspection.

What disposition will be made of these sterling balances—nearly half in favor of India alone—has not yet been officially announced, if, indeed, a decision has in fact been yet reached. But regardless, they clearly complicate the international balance of payments problem that the world will face at the conclusion of the war. And, at least India, has significantly improved its international financial status.²⁰

4. Military Currency and Dollar and Sterling Balances

Even an abbreviated discussion of the postwar international balance of payments problem would be incomplete without reference to the obligations and credits stemming from direct expenditures by the armed forces. These have taken several distinguishable forms even though full details will probably be kept a military secret until the end of the war.

The advancing military forces have found it necessary to have "money" for a number of different purposes in the course of their operations. In the invasion of North Africa in November, 1942, the armies had to have money to be used immediately on their arrival. For this purpose the American armies used the "yellow seal" dollar while the British forces used the "military pound." The latter, known as the British Military Authority note, is reported to be a direct obligation of the British Treasury. The American "gold seal" dollars ("spearhead currency") were charged against the U. S.

²⁰ Cf. Bhojwani, B. N., "Post-War Implications of India Sterling Credits," *The Indian Journal of Economics*, July, 1944, pp. 1-14.

War Department appropriation and it is said that it "created dollar credits in favor of the countries where it was spent."²¹

Beyond these temporary expedients imposed by military necessity there have been the various "occupation" currencies. The military authorities have had to make local purchases, hire local labor, etc., wherever they have gone. In addition they have had to pay the personnel in currency which would be accepted locally.²² For both purposes the usual practice has been to issue "occupation" currency in the monetary unit of the occupied country. It is said that "Military currency is pure 'fiat money.' It is generally issued with no coverage, no reserves, no 'backing'; it may not even represent a promise to pay. . . . The issuing power may not accept any responsibility whatsoever for the military currency that it puts out."²³

From what meager official information is available, the ultimate disposition of this military occupation currency has not been wholly determined in its relation, if any, to American dollars or British pounds sterling. Moreover, it is more than likely that different policies will be followed in different countries, depending upon a variety of considerations.

Two points are of importance, however, in relation to the problem of the international balance of payments after the war. First, it is probable that not all the "spearhead" currency will have been already redeemed in dollars or pounds. Second, even though there is no explicit promise of redemption by the occupation authorities there will be strong pressure on "moral" grounds and those of expediency to accept an "implied" obligation and, therefore, to establish dollar balances in favor of the countries concerned in some amount equivalent to the occupation currency issued.²⁴

²¹ Lester, Richard A., "International Aspects of Wartime Monetary Experience," *Essays in International Finance*, No. 3, Princeton University, Princeton, N. J., 1944, p. 2 n.

²² See *supra*, note 19.

²³ Lester, *op. cit.*, p. 2.

²⁴ It is worth noting in passing that if the occupation currency is not redeemed it constitutes a simple inflationary levy upon the countries concerned. If relief supplies are shipped in and "paid for" by the surrender of occupation currency then the result would be that Italy, for example, would have traded domestic commodities and services (that are not usually exportable) for a (delayed) receipt from abroad of, say, food, medical supplies, and clothing. It has been reported to the writer that this in fact occurred in some parts of North Africa: relief supplies were "paid for" by the surrender of military currency. In substance, therefore, the occupation costs were not borne by the

Military expenditures in countries which have not been occupied in any military sense but which have had airports, oil pipelines, or whatever, constructed within their borders by the military authorities, are another source from which dollar or sterling balances will have been accumulating during the war. And in other areas preemptive buying to prevent goods going to enemy hands, e.g., in Portugal and the Near East, will have built up dollar balances also. Such expenditures, in detail and classified by areas, will doubtless remain secret until the end of the war.

But what fragmentary information is available suggests that the accumulation of American dollar balances and British sterling balances as a result of military necessity will amount to truly large sums.²⁵ Their size will be especially great when taken in comparison, not with total American or British war expenditure, but with the national incomes of the countries in whose favor they have accumulated. And for most postwar problems having to do with reconstruction and economic development this is the relevant comparison.

5. Combined Effect of the Foregoing on International Balances

It would be revealing if these several developments—lend-lease balances, occupation currencies issued, the growth of sterling and dollar debts—could be tied together into a summary figure which

local population but by the American people through delayed delivery of food and other supplies. A similar arrangement could easily be established for the postwar period if felt to be desirable.

²⁵ In the National City Bank of New York, *Letter*, August, 1944, it is said, "More recently the growth of our armed forces has been an added factor in overseas expenditures, more than offsetting a tapering off in some of the earlier types of overseas payments. With several million American soldiers abroad, the requirements for pounds sterling, Australian pounds, Chinese dollars, and Indian rupees have assumed large proportions. It was estimated some time ago that our troops in Australia were spending something like \$200 million a year for goods and services, over and above reciprocal lend-lease aid received from the Commonwealth. At the height of the North African campaign, the Allied forces are estimated to have spent in excess of \$400 million a year in Egypt alone. Though the expenditures of our troops have comprised but a minor share of the Egyptian total, they have figured large in French North Africa and have furnished foreign exchange for the Caisse Centrale de la France Libre, set up in 1941 to serve the liberated French territories. The heavy expenditures of our troops in India have been an important source of dollars for the

would indicate the probable dollar and sterling balances that will stand to the credit of the rest of the world at the end of the war. But the information is not publicly available and also the war is not yet concluded. Nevertheless a few rough calculations are not wholly without predictive value. In the first place foreign-owned sterling short-term balances will probably amount to £1.5-£2.0 billions, and perhaps more, before the end of 1944. Certainly the figures presented above in Section 3 (Table XXIV) are an underestimate not an overestimate. As already said, Lord Keynes has placed them as high as £3.0 billions by the end of 1944, or, say, \$12 billions.

The already visible dollar balances of foreign ownership in the form of banking funds (earmarked gold and bank deposits) will probably amount to \$5-\$6 billions by the end of 1944. These will include balances accumulated in favor of foreigners because of heavy imports, because of military expenditures in other than combat areas, and because there were some foreign banking funds in the United States prior to the war. To this figure should be added an unknown, but probably small, amount for any unredeemed "spearhead currency" still in foreign hands.

But in estimating resources available to foreign countries in comparison with the dollar sums needed by foreign countries for reconstruction and industrialization, some additional facts must be taken into account.

In the first place gold has gone abroad from the United States in rather large amounts since the end of 1941. The decline in the American monetary gold stock is stated to be \$1,570 millions from January, 1942, until June 30, 1944. Another \$200 millions of *newly mined* American gold is reputed to have gone abroad in the same interval. Finally, newly mined foreign gold retained abroad (after deduction for industrial uses) has been estimated at \$2,150 millions, again for the period from January, 1942, until June 30, 1944. And this figure does not include Russian production. In short, newly mined gold outside of Russia, plus losses of American gold, both newly mined and from monetary reserves, have increased the gold

sterling area exchange pool maintained in London." It should be noted that some of the dollar expenditures have not resulted in dollar balances for the countries but, by an exchange arrangement, in sterling balances instead.

holdings of foreigners by roughly \$3,920 millions from January, 1942, until mid-1944.²⁶

Foreign countries have also two other means by which, if they choose, they may increase their dollar balances to acquire needed American merchandise after the war. Early in 1944 gold held outside the United States was estimated to amount to about \$12 billions, including, of course, the accretions in 1942-44 referred to in the previous paragraph. But probably there would be strong objections to depleting these foreign gold holdings since gold was already badly distributed between the United States and the rest of the world even before the war. The second potential source of American dollars (apart from exports of goods and services) is of course for foreigners to liquidate investments. According to the U. S. Department of Commerce long-term foreign investments in the United States at the end of 1939 were approximately \$6.3 billions.²⁷ British holdings have since decreased substantially. But probably some other countries have increased their holdings. How much would be available from this source is difficult to estimate because of the complications of "direct investments" and the strong reluctance in many quarters to force the disposal of private foreign holdings in exchange for domestic funds. Yet the determination to reconstruct or industrialize underdeveloped areas may be only slightly less urgent than the mobilization for war, hence, the liquidation of foreign investments should not be overlooked in the search for resources.

If we take a conservative view and assume that no part of the prewar gold stock outside the United States should flow to this country after the war and that no long-term investments are to be liquidated, then the gold accretions and dollar banking funds in the hands of foreigners will probably amount to roughly \$10 billion at the end of 1944. Sterling balances will total more than £2

²⁶ The above figures are from the National City Bank of New York, *Letter*, August, 1944. But the same figures can be obtained from data in the *Federal Reserve Bulletin*. In considering these figures it must be recognized that in the prewar years there was a heavy gold inflow of gold into the United States after 1929 and that to some degree these accretions by foreigners are an appropriate addition to badly depleted gold reserves. Hence there may be no disposition to see them decline in exchange for American merchandise after the war. Cf. Federal Reserve Bank of New York, *Monthly Review*, June 1, 1944, pp. 43-45.

²⁷ *The United States in the World Economy*, p. 123.

billion at the same date. And the likelihood is that, at least until "VE day," these balances will continue to grow larger rather than decline.²⁸

Viewed abstractly, the order of events and the character of the war have been such that Great Britain and the United States have drawn supplies from the rest of the world by giving post-dated checks in payment. The checks cannot be cashed immediately for desired goods and services because export controls in both countries limit or prohibit current delivery. At the end of 1944 the total of such post-dated outstanding checks probably amounted to about \$10 billion American dollars, about 2 billion pounds sterling plus whatever dollars and pounds are finally given for military currency issued. In other words, a sum of something in the neighborhood of \$18 billion.

How large is \$18 billion dollars? We may note in the first place that it is greater than the whole of lend-lease shipments from the beginning until March 1, 1944. It is more than five times total American exports in 1937—the largest peacetime year after 1929. It falls short of total world exports of merchandise in 1938 by about \$4 billions but is nearly twice as large as merchandise imports into Continental Europe in 1938.

6. *Foreign Balances and the Bretton Woods Proposals*

The foregoing rough calculations of \$10 billion and £2 billion as dollar and sterling credits that will stand in favor of the rest of the world at the end of 1944 are wholly apart from any commitments arising under the Bretton Woods agreements. It is not our purpose to enter into any detailed discussion of either the International Monetary Fund or the International Bank for Reconstruction and Development. A proper analysis of these would require a small book in itself. We may note, however, what sums would be added to the above figures of \$10 billion and £2 billion if the Bretton Woods agreements are accepted by the governments

²⁸ In considering these figures one should mentally add the existing commitments of the Export-Import Bank. Not all of the bank's loan commitments are likely to be drawn upon by the end of the war. At December 31, 1942, the Export-Import Bank had undisbursed commitments of \$425.7 millions. *Annual Report for 1942*, Washington, 1943, p. 5.

of the signatories and the two institutions established. Let us first consider the Bank since it, rather than the Fund, is designed to promote international investment on long-term account.²⁹

The required subscription of the United States to the Bank is \$3.175 billions and the United Kingdom \$1.3 billion. But only 20 per cent of these amounts, i.e., \$635 million and \$260 million, may be used for the Bank's own loan fund, or a total of \$895 million. Indeed after the initial call on subscription of 20 per cent and a call at the end of the first year of another 8 per cent, no further demands are to be made upon the subscribers except as needed. These contributions to the Bank's own loan fund cannot be lent or exchanged by the Bank unless the country whose currency is to be lent approves. Consequently the \$895 billion is a loan fund contribution with a reserved veto power. But because the subscribers must pay in gold or U. S. dollars to the amount of 10 per cent of *their initial 20 per cent* subscription (i.e., 2 per cent of the total subscription) the Bank will have \$182 million (out of a total subscription of \$9,100 million) which can be used to purchase any currency its needs may require. But this is a small sum.

Hence so far as the Bank is concerned it will add immediately upon its establishment something short of \$1 billion to the balances of \$10 billion and £2 billion already estimated.

As for the International Monetary Fund, the American quota is \$2,750 million; that of the United Kingdom \$1,300 million. These subscriptions are payable partly in gold and partly in local currency. The subscription in gold is to be the smaller of either 25 per cent of a country's quota, or 10 per cent of the country's official holdings of American dollars. For present purposes the significant figure is the \$2,750 million contribution of American dollars. The gold subscription, even though the Fund may use its gold holdings to acquire American dollars, is not pertinent to the present discussion because these gold payments to the Fund we have already reckoned with in our estimates of gold holdings outside the United States and foreign-owned American dollar balances. The important point is the additional dollars of \$3,750 million provided as the American quota in the Fund.

²⁹ The remarks that follow are based from current press reports and Goldenweiser, E. A., and Bourneuf, Alice, "Bretton Woods Agreements," *Federal Reserve Bulletin*, September, 1944, pp. 850-870.

The purpose of the Fund is to smooth out irregularities in the balance of payments on current account between the member countries. By explicit statement the Fund is not designed to care for disequilibria in the balance of payments arising from postwar reconstruction and relief. These are to be handled separately. Presumably the Fund would handle temporary disequilibria arising from industrialization and development projects undertaken by a member country and developing prior to long-term borrowing on capital account by the member. So that indirectly the Fund could be an instrumentality for assisting development projects if not economic reconstruction.

Some fears have been expressed that the Fund would run the persistent danger of running short of American dollars. The Fund could not acquire more dollars (beyond the \$3,750 million) except by using its gold holdings or by resort to the somewhat complicated repurchase provisions governing currencies of countries in oversupply in the hands of the Fund. But existing gold holdings we have already accounted for in our estimates, and any American dollar balances held outside of the Fund would have to come from these or from current exports by the rest of the world to the United States after the Fund has been established.³⁰

The Fund has of course many other aspects as to its structure and operations that are not germane to our present interests. But these we need not consider in the present context.

At present writing the governments of none of the signatories of the Bretton Woods agreements have formally accepted the proposals.³¹ Yet it is worth-while to note what additional dollar re-

³⁰ Cf. Williams, John H., "International Monetary Plans after Bretton Woods," *Foreign Affairs*, October, 1944.

³¹ How one regards the proposals depends, apparently, upon where one sits. A French economist writing in an English journal concludes as follows: "When it comes to accepting or rejecting Bretton Woods, any deliberation based not on political, but on economical, considerations must counsel their rejection. Removal of controls and restrictions is the only bargaining weapon debtor countries possess to secure a reasonable economic policy from the United States. To throw this weapon away before having used it would be the height of folly. If this reorientation of American policy can only be obtained by a showdown, appeasers should remember, from recent experience, that a showdown now is cheaper than appeasement plus showdown later.

"For, in substance, Bretton Woods is not, as some optimists have claimed, a happy compromise. It is the total maintenance of United States' economic bargaining power coupled with complete renunciation of bargaining power by

sources and sterling resources are added to the world supply of dollars and sterling if the Bank and the Fund are set up as proposed.

We have already estimated \$10 billion and £2 billion (\$8 billion) as a conservative figure at the end of 1944 quite apart from the Bank and the Fund. The establishment of the Bank would add \$635 million to the supply of American dollars and £65 million (\$200 million) to the supply of British pounds.

Although the Fund is not intended to handle balance of payment problems occasioned by relief and reconstruction needs, it could presumably be used in connection with industrial and economic development. On the basis of present quotas it would add \$2,750 millions in American dollars and £325 (\$1,300 million) in British pounds. Hence the net effect of the Fund and the Bank combined would be to add \$3,385 million to the dollar balances of the rest of the world and £380 million (\$1,560 million) to the total of foreign-held sterling balances. Otherwise expressed the adoption of the Bank and the Fund would together increase dollar assets available to foreigners by about one-third and similar sterling balances by about one-sixth. And the main increase comes from the Fund rather than the Bank.

III. AGGREGATE CREDIT BALANCES AND SPECIFIC NATIONAL REQUIREMENTS

1. *Foreign-Held Balances and the Needs of Reconstruction and Economic Development*

WE NEED to be careful not to misinterpret the meaning of the \$18 billion figure which emerges as a rough index of the probable combined dollar and sterling balances of the rest of the world after the war. This is a total figure. It does *not* demonstrate that any one country in need of reconstruction or desirous of pushing its industrial development after the war has dollar or sterling credits adequate to its needs. Some will have larger balances than they

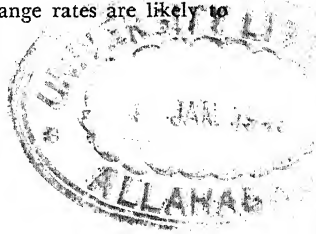
the debtor nations." Schwarz, R. P., "Bretton Woods," *The Fortnightly*, October, 1944, pp. 208-209.

require; others will have a deficiency. But, apart from the United Kingdom, there is at least a presumption that dollar balances are sufficient *in total* to make a good start towards relief, postwar reconstruction, and deliberate industrialization. And there are the sterling balances besides. The problem would appear to be more one of achieving a satisfactory distribution of the existing balances in dollars and sterling at the war's end than a problem of finding neat schemes for making larger credits and loans available.

No one can be certain, of course, what will be the "necessary" imports from the United States and Great Britain to achieve economic reconstruction and planned industrial development. Hence no one can be sure whether or not the \$10 billion and the £2 (or more) billion will be large enough to finance such "necessary" imports. And there are two other uncertainties. First is the uncertainty concerning the course of American and British prices during the remainder of the war and the early postwar period. Insofar as American and British prices continue their rise during the war, and level off into a plateau after the war, then the physical goods that a given dollar and sterling sum will purchase will be less. And conversely. Secondly, there is the uncertainty about postwar exchange rates. Conceivably these might be set through ignorance, bad judgment, or deliberate intent in such ratios to one another that the usefulness of the dollar and sterling balances would be adversely affected.³²

In considering what volume of imports is "necessary" for reconstruction and industrialization programs we are impelled to recall the reader's attention to some of the observations and conclusions offered in Part One of the present volume. We there argued that both reconstruction and industrialization were essentially a problem of real capital accumulation; that the nature of the real capital that had to be accumulated—especially construction and the results of construction activity—precluded its being directly imported from abroad; that imports financed by borrowing (i.e., imports in excess of current exports) by the capital-accumulating countries were a means of allowing capital accumulation at a more rapid rate and/or with less real sacrifice than without imports; and that there was probably too easy an assumption that foreign bor-

³² In the writer's judgment any serious errors *re* exchange rates are likely to be deliberate rather than accidental.



rowing was directly related to real capital accumulation in the borrowing country. If these contentions have merit then there is all the more reason to suppose that the total dollar and sterling balances in foreign hands at the end of the war may be nearly adequate for such economic reconstruction and planned industrialization as is necessary and worthy of being undertaken. At least there is enough to make a good start towards these objectives. In other words, the argument and analysis of Part One complement and reinforce the present rough calculations as to the adequacy of the ten billion dollars and two billion pounds sterling in foreign credit balances for reconstruction and economic development.

But if one argues that the funds are nearly sufficient in the aggregate if partitioned according to need it is not to say that their division among the needy raises no problems. Let us examine these briefly.

2. The Problem of Allocation

The difficulties in the way of obtaining a workable distribution of aggregate foreign dollar and sterling credits after the war run in several directions.

There is first of all the problem of the composition of any country's balances in dollars or sterling between private and public holdings. In the tables above we have listed principally the holdings of central banks and governments, e.g., Table XXIV showing sterling balances. But in some countries substantial dollar or sterling credits may be in private hands and yet these be listed among the foreign exchange holdings of the country. For example (as stated *supra* p. 187), there were \$2.2 billion of foreign banking funds in the United States at June 30, 1944, which were recorded as "other," i.e., "not official," banking funds.³³ While these constitute part of the dollar holdings of the countries in question in the usual statistical sense they are not "loanable dollar funds" from the point of view of "the country" (i.e., the government) unless the government is willing to demand their surrender in exchange for domestic funds or unless the private owners should perchance de-

³³ In all probability this figure substantially *understates* the total non-official balances. The camouflaging of foreign-owned balances in dollars has become nearly a fine art as everyone knows.

sire to make investments in countries that need dollars for reconstruction or industrial development. A country that is having trouble finding enough dollars or pounds to finance needed imports from abroad is not likely to hesitate to commandeer privately owned foreign funds. But a country which is not so embarrassed—strong exchanges, positive trade balance, etc.—is likely to be reluctant to insist that its citizens must turn over foreign exchange holdings. And this is especially likely to be the official and popular attitude when the purpose of forced surrender is to make loans to other countries. It does not require great imagination to foresee the kind of popular arguments that could be marshaled in opposition to such a plan. Hence the aggregate postwar foreign dollar and sterling balances may be misleading for the reconstruction and industrialization problem insofar as some of the largest holders may be unwilling to make loans to those with genuine need: some countries will have more than they require but they will not lend their surplus to others.

Problems of this kind are among those which yield most effectively to solution by some kind of international agreement. An agreement between all countries would strengthen the hand of any one country with its own populace. Furthermore the reluctance to lend may be based on suspicion or misunderstanding as to the purpose and safety of the loans. An international agreement could help to clear the way here as well.

Loans from those countries which have a surplus to those countries which have not enough dollar or sterling balances to finance necessary imports for reconstruction and industrialization may be stifled by the simple inexperience of the new creditors. India or Iraq, for example, may emerge from the war as net creditor nations on international account. And Iceland is commonly reputed to have enough dollar credits to support much of its population on imports for years to come. But no one of them has had much experience in making foreign loans abroad, even assuming their willingness to do so. While the prospect of Iraq making a sterling loan to Greece is at least novel, it ought not be impossible of arrangement: enough specialized skill in these matters presumably exists in any one of the prewar financial centers to bring it off. A completely competitive international loan market might of course be expected to achieve a proper distribution automatically. But in

the conditions that are likely to prevail after the war some more reliable arrangement should probably be established.

3. The Special Difficulties of Great Britain

No discussion of these problems could overlook the peculiarly difficult position of Great Britain in the postwar world. Her problem in many respects is a magnified obverse of those countries which have gained dollars and pounds as a consequence of the war. Her foreign investments have been sharply diminished. Her reconstruction needs will be large. And she is already heavily in debt to other countries. Her traditional position *vis-à-vis* the rest of the world has been nearly reversed as a result of the war. From a country accustomed to provide her people with a high standard of living through exports and income from foreign investments she will reach the postwar period with her foreign investments destroyed or liquidated, with a shrunken foreign market for her exports because of industrial development abroad, and with a domestic economy whose productivity and efficiency has been seriously impaired by undermaintenance and physical destruction. (As in the United States, probably much of her wartime capital investment will have a limited peacetime usefulness.) And added to her other burdens will be a social security program and a national defense budget whose real costs will substantially exceed similar prewar items as a percentage of the national income.

The economic policies that are appropriate to the postwar problems of the United Kingdom do not lend themselves to cursory treatment in a short paragraph. The problem has been much discussed from various points of view. We do not presume to be able to add anything new to that discussion here. The crux of the problem lies in the juxtaposition of the basic factors listed in the previous paragraph. And in view of these it is small wonder that there is active discussion in Great Britain of the necessity for exchange control, for subsidies to exports, for cartelization, for funding short-term sterling debts, for restrictions on foreign lending, for import restrictions of various kinds, and for many another device horrifying to the nineteenth-century tradition in international liberalism. What will ultimately emerge as an integrated

policy is not now clear. But in view of the nature of the problem some drastic changes from prewar policy seem unavoidable.

Indeed the British problem appears on examination to be far and away the most serious difficulty in the whole postwar international financial scene insofar as one can now visualize that picture. And the British case is complicated by the fact that she has to consider not only her immediate postwar position but matters of longer-run policy as well. The adaptations which British policy invokes to meet the acute pressures of her immediate postwar position, both in its domestic and international aspects, will have a marked effect upon the policy she can and must follow over the decades to come. An economic world dominated by a vigorous insistence upon "security" and "stability" as the worth-while objectives and characterized on its technical side by a prodigious fixed investment is an economic world in which sharp and sudden changes in over-all economic policy are no longer possible. The consequence is that for the United States and the world at large the utmost importance attaches to achieving an effective solution to the economic problem that the United Kingdom will face when the war ends.

The solution to the British problem can certainly be the more easily effected if the United States provides tangible assistance. The manner in which this assistance should be provided and the forms it should take are both large questions calling for careful exploration and analyses in the light of the pertinent facts which doubtless exist but are not available to the general public at present writing. In the absence of these one must confine the discussion to broad issues as we have done here.

IV. SUMMARY

THUS while the case is not conclusive, there is reason to believe that the dollar and sterling balances in the hands of other countries are likely to be fairly large by the time the war ends. If at all distributed on any rational basis they ought to go a considerable distance towards providing the necessary dollar and sterling balances needed to finance reconstruction and planned economic development. There will be some difficulties in arranging for their

reasonable distribution. But these are far short of being insuperable.

The Bretton Woods agreements, if adopted by the signatory governments, would still further increase the dollar and sterling funds available for the financing of current imports and projects dealing with the development of low-income areas.

So far as one can see at present the really serious financial problem in the international scene at the war's end will be the case of the United Kingdom. The complete reversal of her international financial position during the war years is of a magnitude that cannot be paralleled by a corresponding change in the composition of her industry and the tastes and habits of her people in the same time interval. Some special arrangements in the financial sphere will undoubtedly be necessary in her case. What these will be and the amount and type of assistance provided by the United States cannot be discerned in advance. But both political and economic considerations suggest that help will be forthcoming.

The wave of American international lending after World War I was of doubtful wisdom viewed either from its international or national consequences. It was not possible for the United States to shift to the position of a heavy importer as her creditor standing in the international accounts required. Possibly the reasons are to be found in the dominance of sectional selfishness over true national interest in the political formulation of economic policy. But a more acceptable explanation in the writer's view would stress the impossibility of re-adapting the American economy in a very few years from a position of heavy exporter to a position of heavy importer. The British case after the present war will be the earlier American case in reverse. In neither instance can a national economy adapt as rapidly as its international financial position.

ADDENDUM TO CHAPTER XI

Since the foregoing was set up in type some additional information has been made available which supplements the figures and estimates given in the text above. In general these further data strengthen the argument as presented, but for some purposes it may be useful to have the more recent figures. They are given in summary form.

1. Lend-lease exports swelled to a tremendous volume from February through December, 1944. A total of \$18.19 billion was made available during this interval as against \$17.19 billion for the whole period from

March, 1941, through February, 1944, as reported in Table XX *supra*. Classified according to types of goods the percentage distribution of the lend-lease assistance rendered from March through December, 1944, was as follows:

	Per Cent
Munitions (including ships)	51.3
Industrial Materials and Products	23.5
Agricultural Products	14.0
Shipping and other Services	11.2
	<hr/> 100.0

(*Eighteenth Report to Congress on Lend-Lease Operations*, Washington, 1945, p. 8.) For the period January through November, 1944, 75.3 per cent of lend-lease aid was delivered to the United Kingdom and U.S.S.R. (*Ibid.*, p. 15.) This is a slightly higher figure than the 70.1 per cent given in Table XX for the period March, 1941, through February, 1944.

2. According to Robert L. Sammons in the *Foreign Commerce Weekly*, January 27, 1945, the United States was a net debtor, *not* creditor, nation on long-term and short-term account *combined* at the end of September, 1944. According to the figures there given the United States was a *net* debtor on short-term account in the amount of \$5.6 billion and a *net* creditor on long-term account in the amount of \$4.4 billion, hence a *net* debtor position of \$1.2 billion. Short-term assets held by foreigners were put down in this study at \$2.8 billion on private account and \$3.3 billion on "official" account as of the end of September, 1944. It is also indicated in bold type that the figures presented are known to be understatement in relation to the full facts. These higher figures strengthen the point already made in the text above.

3. The net gold outflow from the United States during the calendar year 1944 is reported to have been \$1,305 million. (*Foreign Commerce Weekly*, March 10, 1945, p. 31.) This is presumably ear-marked gold and newly mined gold combined.

4. The total sterling balances to the credit of non-nationals is probably substantially understated at £2 billion as of the end of 1944. £3 billion seems to be increasingly cited in later discussions. Hence the analysis in the text above concerning the dangers of the British position is on the conservative side.

12 IN RETROSPECT AND IN LIEU OF CONCLUSION

I. A SUMMARY VIEW ON AMERICAN FOREIGN INVESTMENT AND ECONOMIC WELFARE AT HOME AND ABROAD

AT THE risk of some repetition it seems useful to draw together some threads of the argument relating to foreign investment, trade, national income, and employment as they appear particularly to relate to the probable position of the United States in the postwar period.

1. The enormous productivity capacity demonstrated by the American economy since Pearl Harbor leaves little doubt that all earlier notions on this score in general circulation were gross underestimates. The number one problem in the economic sphere for the postwar period is how effectively to gear this capacity into useful operation and to maintain it running smoothly. The triumphant achievement of this objective would contribute to the material welfare of our own citizens and the world at large in a degree that can scarcely be envisioned. But it would be idle to assume that the attainment of that end will be a simple task free from hampering obstacles. The political, technical, and social difficulties that stand barrier to an effective harnessing of the productive capacities of the American economy are unquestionably large.

It is not within the scope of the present volume to sketch a comprehensive program by which high levels of national income can be drawn from the American economic system. It is appropriate for us to consider the relation of postwar foreign investment to

American national income. And the relationship falls conveniently into two stages. In the first there is a net outflow of investment abroad for reconstruction, industrialization, economic development, or whatever. In the second stage the return flow of payments to the United States exceeds the gross outflow of new investment. Let us examine these in turn in their relation to national income and material welfare.

2. Generally speaking, it makes little or no difference from the point of view of the American economy for what purposes abroad American investment commitments are undertaken. For the really important effect of the investment of American funds abroad is that it increases the world supply of dollars. The rest of the world has more dollars than it would have had in the absence of foreign lending by the United States. These dollar balances (unless held as idle deposits) will be spent for the purchase of American products or services. Exports rise and the incomes of American producers are made larger as a consequence. These larger incomes in turn will be (partially) spent for consumption goods and capital goods and so produce secondary, tertiary, and subsequent effects upon incomes in the United States. In reflecting upon this sequence of increments to domestic incomes in the United States it should be constantly borne in mind that the analysis is only valid if one assumes that the alternative to not investing abroad is hoarding, i.e., not spending, at home. By lending abroad, it is assumed, money is ultimately spent for American products for export which would otherwise not be spent at home. (The validity of this assumption is not here in question although there are some reasons for questioning it.)

The precise point at which the initial effects of foreign lending are felt in the American scene depends, of course, upon what products foreigners choose to buy with their larger dollar balances. As we have been at some pains to point out in Chapter IX, there is no reason to suppose that the *original* borrowers themselves, barring special stipulations in the loan contract, will necessarily want or demand American products. All that we can be sure of is that in the last analysis the dollar balances must be exercised for the purchase of American goods or services for the benefit of foreigners. Consequently what goods will in fact be exported because of the foreign lending will depend upon relative prices of American goods

and foreign goods and upon buyers' preferences, apart from price, for various types of products from different countries.

The real transfer when foreign lending occurs can only be effected by way of goods that are capable of moving in international trade, or theoretically, by transfers in the ownership of immovable property.¹ This means that the effects of foreign lending upon national income are limited to those channels which are open to goods moving in international trade. In other words, the beneficial effect of foreign investment upon national income in the lending country is restricted (initially) to its effects upon incomes in those industries whose products or services are capable of entering into international commerce.²

Because foreign investment is so restricted in its effects upon domestic national income and employment, it is inappropriate to regard foreign investment and home investment as equally effective in contributing to domestic welfare. To be more specific: if \$25 billions of gross investment are necessary to maintain reasonably full employment in the American economy one could not drastically alter the proportion in which this \$25 billion were divided between home investment and foreign investment and expect full employment to persist. The greater the proportion of foreign investment to the total the greater in general would the total investment necessary to sustain full employment have to be. And the same argument holds with added force if the question at issue is, as it is likely to be, the relative efficacy (per unit of expenditure) of foreign investment and domestic investment as stimulants to home employment.

Apart from the simple fact that foreign investment must operate

¹ That is, more of the immovable property, e.g., land, in the lending country might come to be owned by foreigners and the transfer so effected. But this possibility does not appear to be of much practical significance.

² There is, I think, an interesting lack of parallelism here between the position of lending countries and that of borrowing countries. In borrowing countries the banking system is strengthened by the loans and may therefore make credit easier for investment projects of *all* types. The benefits of the loan are not restricted in their operation to industries whose products may move in international trade. But for the lending country the *beneficial* effects of foreign investment upon the home economy are limited to the channels already mentioned. If foreign lending makes for higher interest rates in the lending country then of course the harmful effects upon domestic investment and incomes are general.

upon domestic employment *via* the international trade routes, there is the additional consideration, which we have dealt with at some length, that foreign investment leaves the domestic construction industry unaffected in any direct way. Since so much real investment or real capital formation in any country means activating the construction and allied trades, this is another way of saying home investment works directly upon those segments of the economy which are most prone to fall into a slump of inactivity. Hence home investment is likely to be much more efficacious than foreign investment as a stimulant to employment or in warding off a slump. The two are not parallel in all respects by any means and it only confuses basic issues to speak as if they were.

3. The relevance of the foregoing to the problems likely to confront the American economy in the postwar period runs also in another direction.

No one can of course foresee what volume of foreign investment the United States will be willing to undertake after the war. Too many unknowns exist to make even a reasonable guess. But if we recall that the accumulated total of American investments abroad prior to World War II were less than \$12 billions, we are not likely to go far wrong in guessing that perhaps \$2-\$3 billions annually in net new investment abroad on both private and public account would be near the upper limit of reasonable expectations. But such a sum would be small in relation to the aggregate investment apparently necessary to sustain the American national income at acceptably high levels, say, something in the neighborhood of \$140-\$150 billions. In other words, if domestic employment is flagging, the contribution that foreign investment might make to its sustenance is small relative to the magnitude of the task. This is not to say, of course, that it is to be labeled trivial. Indeed, viewed in terms of increments to the total, foreign investment may be more important than the ratio of probable postwar foreign investment to total gross investment necessary to maintain adequate employment might seem to indicate. But nevertheless, even in marginal terms, it seems unwise to proceed blithely on the assumption that foreign investment is the key to the Pandora's box of full employment.

4. In considering the wisdom of foreign loans after the war from the point of view of the American economy and its operations we

must not overlook the phase of the return flow of capital from previous lending. How soon this stage might arrive and how large the flow might be cannot be foretold from any information currently available. It will depend upon how much is lent, over what period, and on what terms. Yet we do know enough from American experience with the war debts following World War I that as a nation we cannot simultaneously insist upon payment of sums borrowed and refuse to accept imports.

The absorptive capacity of the American economy with respect to imports from abroad depends both upon the level of the American national income and, given the national income, upon the American tariff schedules and prices here and abroad. American industry and agriculture have enjoyed substantial protection for many years. How much foreign lending, that will escape default, is consistent with present (1945) American tariff schedules is not easy to guess. But the capacity of the American market to absorb imports without tariff changes is not patently large in comparison with the sums at times suggested as an appropriate volume of American foreign lending in the after-war period.³ The United States is not an island community. It is the largest and most efficient industrial country and one of the world's foremost agricultural and raw material producers.

Foreign lending means default or a delayed flow of imports. And the resultant flow of imports depends upon the volume of lending, the terms of the loans, and their time distribution. The less that is lent (given the terms) the smaller the necessary flow of imports.

A heavy return flow of imports from large antecedent foreign lending would impose substantial adjustments in the structure of American industry. These domestic adjustments to a heavy flow of imports would not be painless. Tariff reductions would make it easier *for the borrowing nations to export to the United States*. But the adjustment imposed upon the American economy would be proportional to the flow of imports. Reductions in the American tariff, or in the extreme case zero tariffs, would increase the flow of imports. But foreign lending must increase the flow still

³ Cf. Staley, E., *World Economic Development*, Montreal, 1944, *passim*; also Kindleberger, C. P., "Planning for Foreign Investment," *American Economic Review*, Supplement, March, 1943, pp. 347-354. Henry Wallace has implied the necessity for enormous American foreign lending after the war.

more. The seriousness of the total adjustment would depend upon the degree of tariff reduction and the preceding volume of foreign lending.

These adjustments are traditionally dealt with as "frictions" and the emphasis placed upon the long-run benefits to be had from applying the principle of comparative advantage. But where modern industry, and to a degree agriculture as well, are characterized by heavy fixed capital investment the shifting of economic resources from one industry to another according to the dictates of the law of comparative advantage is not easily achieved. Moreover, friction seems scarcely the proper word to describe the drag on employment and the atmosphere of depressed areas that such shifts seem to require nowadays. We would not wish to be understood, of course, as implying that the adjustments could not be made. We would wish to point out, however, that the histories of Great Britain from 1925-1931 and of the United States with respect to coal, cotton, and other agricultural products between the two wars do not suggest that adjustment comes easy in the present economic and political setting. All such adjustments are of course more easily affected at high income levels than with underemployment. But the fact that they have to be made, if more imports are to be absorbed because of previous foreign lending, makes the task of maintaining a high national income all the more difficult.

Of course one can take the blithe view that all these adjustment problems associated with the return flow of capital (or alternatively widespread defaults) are so far in the future that one ought not to bother with them in the present. Possibly so. But a national economic policy ought to be something more than a day to day improvisation. And consequently one is entitled to look ahead a little and try to envision the probable delayed results of current actions. If the adjustment to the return flow of capital should prove a trifling problem in the days to come so much the better. But there is nothing inherent in the situation as it can now be viewed to guarantee that that will necessarily occur.

5. The foregoing poses a dilemma. On the one hand an increased supply of dollars after the war can assist the rest of the world in the task of reconstruction and economic development. At any rate it can be made less grim and proceed at a more rapid pace with the assistance of American dollars than without it. Yet from the

point of view of the American economy foreign lending as an investment outlet appears to be open to certain objections in comparison with domestic investment as a stimulus to employment while, under any plausible assumptions, its volume is not likely to be large enough to contribute substantially to the objective of full employment. Alternatively expressed one could say that, economically speaking, what would be large from the point of view of the rest of the world as foreign lending by the United States would be comparatively small as a contribution to the total investment seemingly necessary to achieve full employment in the American economy. Furthermore, foreign investment by the United States implies a willingness to accept imports as service charges and principal payments in due course. All the foregoing, moreover, assumes that foreign borrowers would encounter no difficulty in so arranging their borrowing and domestic investments that they could make exports available in sufficient volume to service the loans. As we have seen in Part One, this might well be difficult to achieve in view of the volume and character of the investments occasioned by reconstruction and deliberate economic development.

All things considered, it would appear that both from the point of view of the borrowers and that of the United States as potentially the chief lender in the postwar period there are serious difficulties in a large foreign investment program along familiar and traditional lines. Yet if American dollars can be made available they would undoubtedly assist reconstruction and economic development. But the balance of payments problem for borrowers, the essential character of the economic assistance that American foreign lending might render, the effects of foreign investment upon domestic employment, and the possible consequence to the United States of accepting a heavy return flow of imports, all these suggest that foreign lending along lines that are historically familiar is less than a completely satisfactory solution to the postwar economic problems that some have envisioned it performing.

6. The tangible contribution that the American economy can make to reconstruction and economic development is through providing goods and services. These goods and services, as we have emphasized, may be directly or indirectly contributory to capital accumulation. Apart from gifts in kind, however, such goods and services must be paid for in dollars. Hence the question resolves

itself into that of the various ways in which the rest of the world can increase its dollar balances with which to purchase goods and services in the American market.

Viewed analytically there are only three ways in which the rest of the world can acquire more dollars for reconstruction and economic development. The dollars can be a gift, a loan, or the result of increased absorption of imports by the American market. However these three methods may be disguised, combined, or submerged in elaborate schemes or machinery they remain as the only means by which the rest of the world can acquire purchasing power in the American market.

From the point of view of the United States the choice between the three methods would seem to turn upon their immediate and longer term effects upon the American national income.

Gifts and loans, during the period of donation, or foreign investment, in the interval of net outflow, have essentially the same effect upon domestic national income. They both lead to an increase in the volume of goods exported and to that degree they augment incomes in those industries whose products are sent abroad. The beneficial effects of this process in secondary and tertiary developments we have already explained and need not repeat here.⁴

Other than gifts, which require no repayment by definition, the other two methods by which the rest of the world may acquire dollars require the American economy to absorb imports of goods and services. In the case of loans the United States provides goods and services as a first step, and undertakes, if it is to be repaid, subsequently to take imports as a second step. The lag between the boom in exports and the acceptance of imports may be quite substantial. Where economic reconstruction and development proceed on a pay-as-you-go basis, the rise in exports is likely to be nearly

⁴ It is assumed here that the gifts or loans are made at a time when increased money expenditure will go (mainly) into augmenting output rather than simply raising prices. If reasonably full employment prevails, then more goods as exports can only be put at the disposal of foreigners by diminishing the amount made available at home. The division of total output between the home population and the rest of the world can of course be achieved in several ways. The simplest of these is through an inflationary rise in prices: real output gets divided according to the relative rise of prices and incomes in different segments of the economy. Apart from an automatic division through inflation there are various rationally planned schemes that might be used.

simultaneous with the absorption of imports. In other words, when the foreign demand for American products is insistent it is unlikely that any dollar balances obtained from exports to the United States will be allowed to stand long as idle deposits.⁵

If this analysis is correct it would follow that, from the point of view of the effect upon the American national income, a loan policy and a pay-as-you-go policy are not identical.

A loan policy gives a lift to exports and hence is a favorable stimulus to domestic employment and income. As long as there is a net outflow of foreign investment this stimulus is not offset by a corresponding drain arising from the absorption of imports. When the flow of in-payments from previous lending comes to exceed the outflow of gross new investment, then a lending policy requires the creditor country to absorb imports. These imports have then no countervailing tendency serving to offset their depressing effect upon employment and income. At least this is true unless the liquidation of the previously incurred loans should make for lower interest rates and so stimulate investment and national income in the United States. But it would seem that the strength of this tendency would be insufficient to make for any noticeable change in home investment. The argument also requires the assumption that the limit to further investment in the United States was the excessive level of interest rates.

A pay-as-you-go basis, on the other hand, appears to be continually neutral in its effect upon national income, or nearly so. The absorption of imports would be a depressant upon income and employment in the United States according to the usually accepted analysis. But if the dollar exchange obtained from imports were almost immediately spent for goods to be exported abroad, there would be a corresponding (and almost immediate) stimulus to incomes and employment at home.

Hence as between a loan policy and a pay-as-you-go policy in their effects upon national income the main distinctions would appear to be these. A loan policy gives a protracted stimulus to employment and income as long as there is a net outflow of investment abroad. As Mr. D. H. Robertson once said, referring to

⁵ An exception to this generalization would be highly unsettled social conditions which caused people to try to shift from weak currencies to strong currencies. Exports can be a means of making a flight from a currency, e.g., in Europe after 1931.

Great Britain, "For getting out of a slump there is nothing like a whiff of foreign investment." But he might have added that the return flow of capital as interest and principal was a soporific. A pay-as-you-go policy on the other hand depresses incomes in one sector of the economy at the same time that it stimulates another. The tendencies probably about neutralize one another except in special circumstances.

II. AMERICAN POLICY AND THE WORLD ECONOMY

IN THE international sphere the primary problem confronting the United States after the war will be how may it best utilize its economic resources to push world economic development in desired directions without threatening its own national income immediately or over the longer run. Measured by any of the usual indices the United States, as we have seen, is large relative to other countries in economic affairs. Any policy that the United States follows, either deliberately or as the pattern that emerges from day to day decisions, will have a profound effect upon the course of economic events in the rest of the world. So much is certain. But the problem of what is the most desirable course for the United States to follow as an economic policy in international affairs is exceedingly difficult. Mistakes are inevitable. Yet one cannot therefore refuse to consider the problem. The few pages that follow endeavor to suggest three major lines along which American policy might properly develop. The suggestions are less than comprehensive of course. But they appear to the author to be reasonably well adapted to the basic elements of the problem.

III. EMPLOYMENT AT HOME AND NATIONAL INCOMES ABROAD: THE KEY POSITION OF THE UNITED STATES

1. THE greatest single contribution the United States can make to the postwar world in economic affairs is to maintain her domestic

economy at levels of high income and employment. The preponderance of the United States in the world economy is such that high income levels here give a substantial lift to prices, employment, and national income in other countries. The converse is not nearly so true: other countries pushing towards higher income levels are probably not able to pull the American economy along with them. Foreign trade is relatively less important in American economic affairs than in those of other countries, while at the same time the American share of total world trade is significantly large. Alternatively expressed, America's proportion of world trade is large relatively to that of other countries yet that share is small in comparison with the whole American economy. High levels of employment and income in the United States are a strong lever on incomes and employment in the world outside the United States, but the same degree of prosperity attained elsewhere independently of the American economy is probably not sufficient to lift the American economy to acceptable levels of national income.

In drafting policies to put the American economy at high income levels and maintain it there, the United States and other countries should of course cooperate to the end of developing policies that are harmonious and mutually consistent. In general, this means pushing for expansion. Restrictionist policies must be avoided except to the degree that a particular country finds its prices and incomes moving upwards at a more rapid rate than the world at large and hence, to that degree, likely to cause disequilibrium for itself and others.

But the crux of the problem in this cooperative venture towards high incomes throughout the world is the preponderant importance of the United States. If the United States falters the rest of the world will find its task nearly impossible. But if, by appropriate policies, the United States succeeds in achieving and maintaining the levels of income of which it is capable, there can be some faltering and missteps by other countries without courting extreme disaster. The United States must play its role effectively or the whole show will be a failure.

2. The policy necessary to achieve satisfactory levels of national income in the United States is essentially a policy for achieving a sufficient volume of real investment. If real investment can be

pushed to a high level, then national income will be large and real standards of living bountiful.

There has been much discussion in recent months concerning the likelihood that investment on private account after the war will be great enough to give the required support to national income. Those to the left of center and those of a pessimistic frame of mind are inclined to deny that private investment will be large enough to carry the American economy to high levels of income and employment. Those to the right, and those more optimistic, take a more hopeful view. Surely no conclusive answer can be drawn from the meager facts and the abundant uncertainties that now compose the problem. For our purpose, moreover, it is unnecessary to have firm convictions on the topic. We need only emphasize that unless investment is maintained at high levels it is futile to expect an abundant national income.

There is the choice, however, between a greater and lesser reliance upon foreign investment in the aggregate of total investment activity. The writer's views on this topic have been made clear by the analysis of the earlier chapters.

Under any reasonable assumptions as to the volume of international investment that the United States might make on the prospect that the loans would remain solvent, the total of foreign investment is small in comparison with the aggregate investment apparently necessary to achieve a high national income in the United States. The main reliance must be upon home investment. Let it be emphasized that we here mean *bona fide* loans that are negotiated with the lender's expectation that they will be repaid and with the borrower's intent to pay them. We are not speaking of "loans" that are granted with no real belief that their terms will be respected.

Our reasons for arguing in favor of assigning a minor role to foreign investment in an investment program designed to attain a high American national income are not based entirely upon the smallness of foreign investments likely to avoid default compared to the investment total required.

A really ambitious foreign lending program means a boom in the export industries which will have to be contracted when new lending falls off (as it would be likely to do after a brief upsurge) and the American balance of payments must turn passive to accept

income and principal payments on the previous lending. The greater the flood of new lending abroad, the greater, ultimately, must be the inflow of payments when net new lending declines or becomes negative. From the point of view of borrowing countries and the United States alike such sharp reversals are to be avoided. From the long term point of view the United States had best avoid giving a big stimulus to exports which will have to be followed by taking a correspondingly large excess of imports. There will be enough other factors at work tending to stimulate American exports after the war without making the somersault more difficult by the further impetus of heavy foreign lending.

These remarks are not to be interpreted as meaning that the United States should refuse to participate in the International Bank and the Fund proposed at Bretton Woods. What we are arguing, however, is that foreign lending *beyond* American commitments in the Bank and the Fund should be cautious and judicious. The United States, moreover, should not assign an important role to foreign investment in formulating its own program for attaining a high national income. By refusing to join the Bank and the Fund the United States would damage its own interests and those of the rest of the world. From the American point of view, moreover, the sums involved are not so large as to occasion alarm on the balance of payments problem. American acceptance of the Bretton Woods proposals is not only desirable but is necessary.

IV. A REVISION OF AMERICAN COMMERCIAL POLICY: THE PECULIAR VIRTUES OF THE PRESENT AS A TIME FOR CHANGE

THE second major pillar in American economic foreign policy should be a systematic lowering of the American tariff to discover the absorptive capacity of the American market for foreign goods and services. It appears that unless American tariffs are lowered during or immediately after the war, an opportunity will have been lost that will not soon return. The benefits of tariff reduction would be substantial and present circumstances are peculiarly favorable for minimizing the dislocations in the American economy.

The lowering of the American tariff would mean more to the rest of the world than to the United States. This follows from the size of the American economy in relation to the individual economies from which it would be drawing imports. We have emphasized repeatedly that, even before the war, American imports were a large fraction of total world trade. A moderate increment in American imports, therefore, would often mean a substantial increase in exports for the countries from whom the goods come. Even a small percentage increase in the proportion of imported goods in the American market will greatly benefit the exporting countries. The same aggregate of goods exported from other countries but imported into the United States will be a much larger percentage of national incomes abroad than the imports into the United States will bear as a percentage of the American national income. And as in all cases of specialization and exchange by trade, the real benefits to the American populace would consist in having more goods per unit of effort expended. It is not necessary here to argue the benefits of international trade. They have been long familiar and accepted by those who have taken the trouble to examine the argument under the assumptions employed.

Though the benefits of lower tariffs and freer trade are not in dispute it is not as generally recognized that the present is a peculiarly appropriate time for scaling down the American tariff. The reasons are worth emphasizing.

In the first place, an immediate lowering of the American tariff would do much to halt the world-wide drift towards economic self-sufficiency. In many parts of the world it appears that countries are hesitating in doubt between developing their economies through policies that look towards participation in world trade, and policies that endeavor to minimize reliance on the outside world. To be sure, the attractions of economic self-sufficiency do not rest altogether on economic grounds but also on considerations of national security in a non-peaceful world. But its economic attractions are as a means to economic stability, and they spring from a despair of attaining economic stability through participation in world trade on a basis of international specialization. An immediate lowering of the American tariff would at one stroke accomplish two things which would check, and perhaps even reverse, the drift towards national self-sufficiency. In the first place,

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it would be a formal declaration that other countries could expect to sell their specialties in the American market and so acquire American products in exchange.⁶ In the second place, lowering the American tariff would be a concrete affirmation to the rest of the world that American welfare did not depend upon insulating the American economy from the rest of the world. It is a common lay opinion abroad that the high level of income in the United States is a shining example of the potentialities of protectionism. A prompt lowering of the American tariff coupled with the announced intention to maintain income and employment in the United States at a high level by policies directed towards increasing investment and world trade would have a marked influence upon the policies adopted by other countries that now hang in doubtful hesitation between self-sufficiency and participation in world trade as the objectives of commercial policy. Were the United States to lower its tariffs to encourage imports from the rest of the world such action might go far towards deciding the issue against economic self-sufficiency as a concerted policy.

But the arguments for lowering the American tariff at once, or at least before there is a conversion from war goods to peace goods production, are no less compelling from the point of view of the American economy.

From all but economic isolationists the prime objection to lowering American tariff rates has always been the contraction of production that would ensue in domestic industry as a consequence of increased imports. Lowering rates would mean that domestic production would have to contract. But there are two reasons why this argument carries less than its usual force as an objection to tariff reduction at the present time.

In the first place, many of the goods on which it would be desirable to lower tariffs as a permanent program are goods which are not now in production within the United States at all. The industries concerned have converted to war goods production or have discontinued operations because of material shortages. Hence

⁶Lowering the American tariff would tend to improve the terms of trade for the exporting countries. They would sell more and at better prices. Indeed the lowering of the American tariff would tend to make some goods more expensive to other countries. For example, English beef is doubtless cheaper than it would be if Argentine beef could be sold on the American market.

the question is not one of contracting their normal output but one of whether these industries should resume production of the kinds of products under the old rates of protection that they enjoyed before the war. There is no problem of shifting labor out of the production of the protected articles. There is only the question of whether they should shift *back* into production. The usual argument against tariff reductions is thus not nearly so forceful at present as it will be a year or two after the war. There will be a huge problem of shifting labor from war to peace production in any case. Lower tariff rates will not appreciably worsen the problem.

The second reason for lowering tariffs immediately lies in the multitude of changes which have to be integrated into the price system at the conclusion of the war. These have been accumulating throughout the war and they are inescapable. Substantially lowering tariff schedules will introduce only a small additional change in the basic economic factors to which economic activity will have to adjust after the war. The overhanging changes that will inevitably result from the war must be integrated into the price system; the effects of lower tariff rates might as well be absorbed simultaneously. Let us explore this point a little further.

The war has wrought a number of significant changes in the basic economic data which have not yet been integrated into the price system. On the side of production the economy will inherit from the war a host of technological developments—inventions, new methods of production, new products, new uses for familiar products, and new ways of doing a variety of different operations. Also, on the production side, will be a changed composition of the labor force in both the kind and quantities of skills available. Also, on the side of consumption, there have doubtless been changes in consumer tastes and wants over so long a period.⁷ And these changes in consumers' tastes will be conjoined with some drastic changes in the distribution of wealth and income through which they will express themselves in demand schedules for particular products.

The important point about these numerous changes in the present context, however, is that they have *not been integrated into*

⁷ In the writer's view these may be much more important than is commonly supposed. It seems probable that the composition of consumers' demand will be drastically altered simply because the war occurred and has lasted so long.

the system of relative prices for non-war goods. For the most part they have been developed in connection with war goods production and they have not been reflected in the costs and prices of non-war goods. They remain unexpressed in the system of relative prices which, under non-war conditions, determines the distribution of labor and capital between alternative employments. And, in the writer's judgment, there is no means of discerning their combined effect upon relative prices *a priori* because in their introduction they will act and react upon one another through the interplay of product prices, prices of productive factors, business profits and losses, and incomes and expenditures.⁸ All these changes will be inherited from the war and will have to be absorbed into the system of relative prices.

Yet because these changes have to be absorbed and their absorption is likely drastically to change relative prices the time is propitious for a major change in the American tariff. The existing tariff schedules and the prewar system of relative prices were geared into one another. But the postwar system of relative prices will be notably different, and it will have to absorb and integrate a host of changes of the kind mentioned, regardless of whether the tariff is changed or not. Consequently the new system of relative prices can adjust and develop to new and lower tariff schedules about as easily as it can to the prewar schedules.

It is for these reasons that the present is a propitious occasion for lowering American tariff rates that is unlikely to be soon presented again.

And there is an ancillary point here that should be mentioned in conclusion. We have argued in Section II that the prime objective of American policy after the war should be to promote high levels of domestic investment to assure adequate levels of national income. The lowering of American tariffs is likely to open up new avenues of investment within the domestic economy. It is often assumed that tariff changes discourage investment activity because they tend to lower profit rates in the industries that have been shorn of their

⁸ To mention but two examples we may ask what will be the long-term effect of the developments in the plywood industry or cheap magnesium upon the structure of relative prices and the composition of output? It is surely impossible to predict the full impact of such changes upon relative prices because their influence extends so widely and affects so many industries.

protection from outside competition. But changing tariffs also makes some industries more active (the export trades, for instance), and the new rates allow other industries to develop that were previously impossible. New industries mean new investment. They serve as an offset to the maintenance of activity in older industries that, perhaps for the most part, were simply maintaining their investments already committed. But a new industry means fresh investment. Although one cannot be sure in these matters, perhaps the reduction of tariff rates would be nearly neutral in its net effect upon domestic investment after the war with possibly a slight likelihood that lower tariffs would stimulate more new investment than they would discourage.

Some doubts were expressed earlier concerning the absorptive capacity of the American market for foreign goods even at lower tariff rates. But it was then pointed out that there was no way of discerning what the net effect would be in terms of increased imports. These doubts still hold in the present context: the writer holds a less optimistic view as to the probable flow of imports from abroad at lower tariff rates than others with whom he has discussed the problem. Certainly the views of vested interests on the effects of lowering the American tariff should be heavily discounted. But what the flow would be is impossible to discern in advance of knowledge concerning the specific rates to be lowered and by how much. Within the range that is likely to be politically possible in the immediate future, the writer would not expect such a flood of goods from abroad as is often predicted.

In order that there be no misunderstanding, let it be flatly stated here that the author would support the maximum reduction in the American tariff schedules that it is politically possible and socially desirable to achieve. And for the reasons indicated he would urge that action be taken before there is any reconversion from war goods production to peace goods production. An equally favorable opportunity for lowering the American tariff is not likely to arise again soon.

Unfortunately our arguments concerning the desirability of reducing the American tariff before the end of the war do not apply to agricultural products. The war has meant expansion, not a contraction, of agricultural production. In relation to costs and prices abroad American agriculture will be even more overextended

at the end of the war than it was in 1939. As we have already argued in Chapter X tariff reductions on agricultural products here might be expected to produce a heavy flow of imports and a serious dislocation of American agriculture, especially in certain products. In other words, the present problem of tariff reductions on agricultural products is of the same character as before the war, only it is, if anything, more acute. And the writer would hasten to add that he sees no simple solution to the difficulty.⁹

The effect of tariff reduction is of course to increase the supply of American dollars to other countries in the degree to which imports occur. A high level of national income in the United States will stimulate imports even at existing tariff rates. A substantial reduction in tariff rates combined with a high level of national income will increase imports and dollar exchange still more. Such imports together with already existing foreign dollar balances and the further sums to be supplied under the Bretton Woods agreements should provide enough dollar exchange for reconstruction and economic development abroad.

V. DELIBERATE STOCKPILING IN THE NATIONAL INTEREST AND THE WORLD'S NEED FOR DOLLARS

THE dollar balances already in foreign hands, the greater absorption of imports, and the lending facilities agreed upon at Bretton

⁹ The basic problem of American agriculture is that costs are high relative to costs of production abroad. If tariffs were eliminated many products would be imported instead of being produced at home. But, in fact, domestic production of some crops, cotton is the notorious example, is in excess of domestic consumption requirements at prices at which the products can be marketed without subsidies to consumers. The war has aggravated these problems because the government had to encourage production by supporting prices in order to supply its needs for the armed forces and lend-lease. Unfortunately also is the fact that parity prices guarantees for a number of agricultural crops extend beyond the war period so that production will be maintained and surpluses accumulate beyond the war's end. It seems virtually certain that American agriculture production will be too large, on any acceptable definition, when the war ends. It is also gratuitous to add, presumably, that the agricultural "problem" in the United States is overwhelmingly a political and social problem rather than an economic problem. For at least a decade or two it has been

Woods should almost provide the rest of the world with sufficient dollar exchange in the postwar period. Yet they may not be adequate to the need for dollars. The magnitude of the task of postwar economic reconstruction and development and the speed with which it has to be undertaken may show that more dollars are necessary. What then? Will the United States then be forced into a large-scale lending program whose long-term results are likely to be unsatisfactory both at home and abroad? There would seem to be no iron necessity to accept foreign lending as the only solution.

An eminently sensible program, in the writer's judgment, is for the government to stockpile imported goods instead of lending on a comparable scale. In other words, the government, acting on behalf of the national interest, would purchase foreign goods to hold as a permanent investment until a national need for them arose. Similar proposals have been made by a number of persons on various grounds.¹⁰ We here suggest it as an alternative to foreign lending. Instead of lending and taking imports later the imports on government account would be received simultaneously with the provision of the dollars. The imports that lending would ultimately require would flow in directly and from the first, but with the further difference that the imports would not pass into regular commercial channels but into government stockpiles. The dollar exchange supplied to the rest of the world in the process would be equally as useful as dollars acquired through borrowing. Let us examine the scheme a little.

The present war has been prodigious in its consumption of material. Much of this has required the use of American natural resources that are fixed in total natural supply—iron ore, zinc, bauxite, petroleum, timber, copper, etc. Some of these will be recoverable through the scrap markets. But a large fraction of the irreplaceable materials used for war purposes will not be recoverable because they will be left in inaccessible places or sunk or reasonably clear that agriculture as a whole should shrink in relation to other industries.

¹⁰ Most of the relevant literature is cited in Graham, Benjamin, *World Commodities and World Currency*, New York, 1944. Mr. William L. Batt, the United States representative on the Combined Raw Materials Board and Combined Production and Resources Board has been a strong advocate of government stockpiling on grounds almost identical with those described here.

destroyed beyond salvage. Under lend-lease arrangements, moreover, much of the salvaged materials will remain in foreign hands.

From the point of view of the United States, however, the consumption of these raw materials has meant a depletion of basic natural resources that are not replaceable. Yet many of them are an important basis for the American industrial economy. Would it not, therefore, be a wise national policy to replenish certain of these exhaustible resources by imports from abroad? For example, there are estimates that suggest that some of our richer iron ore reserves are approaching exhaustion. Would it not be wise, therefore, to import on government account, say, 50 million tons of high grade prepared heavy melting steel scrap? The storage costs would be negligible and there need be no intention of allowing it to hang over the domestic market as a depressant of scrap prices. It could be treated precisely in the manner that the United States Navy treats its oil reserves: a resource to be held in case of need.

The number of commodities which lend themselves easily to such treatment is not easy to list from general knowledge. But the principle is clear. They should be commodities whose domestic supply has been depleted because of the war and for which there is a danger that a shortage might develop at a later date. If no shortage ever develops then well and good. But one would scarcely argue that a fire insurance policy was a mistaken purchase because no fire occurred.

There is a second group of commodities which could also be stockpiled as a deliberate national policy. These are commodities which are not available within the United States or only at enormous cost, e.g., manganese, or commodities which are domestically produced in a volume insufficient for our needs, but which are at the same time commodities that are virtually indispensable to the effective operation of the economy in the event of war. Some steel alloys fall in this category, e.g., nickel and chrome. But certain chemicals are also to be included. The present war has shown how embarrassing it can be to have a war break out in unexpected places and completely shut off normal sources of supply. The United States was perhaps more fortunate than it had any right to be in being able to develop alternative sources of supply of indispensable materials, e.g., tin, synthetic rubber, wolfram, etc. The

country might not be so fortunate again even though there is the fervent hope that the need will never arise again.

The commodities in this latter group differ from the former in that they are commodities or raw materials that the United States normally imports in considerable volume. Their stockpiling is an insurance of national safety rather than an endeavor to replenish domestic resources that have been consumed.

How much dollar exchange might reasonably be provided to the rest of the world through stockpiling in the manner indicated cannot be estimated. Yet the possibilities seem attractive in comparison with the alternative of an equal volume of dollar loans. Purchases can be made flexible in amount and delivery could be arranged in a manner to accommodate sellers and buyers. They raise no balance of payments problem as do foreign loans and they are without any dangers of political overtones to which borrowers are likely to be increasingly sensitive in the years after the war. And it should be emphasized that from the point of view of the rest of the world dollar balances obtained in this fashion are just as satisfactory as loans, and better in the sense that they require no debt service charges over the years to be met by increased exports. The acquisition of dollars and the provision of the exports go hand in hand.

It might be thought that the countries from which we would desire to acquire the raw materials for stockpile would be other than the countries that needed dollar exchange for reconstruction or economic development. This would probably be true. But the fact need cause no special difficulty. The main problem is the threat of a world shortage of dollars relative to the legitimate need for them beyond the sums provided through the International Bank and American imports in the normal course of trade. If the dollars are supplied through stockpiling, their redistribution among the several countries could be achieved without much difficulty.

From the point of view of the United States and on the assumption that the materials are stockpiled over and apart from the usual trade channels, their effect upon domestic employment would be precisely the same as the gain in exports arising from lend-lease operations or a net outflow of foreign lending.

VI. A FINAL WORD

As a final word it seems worth reiterating that if the United States can push its domestic economy to the levels of production and consumption of which the economy is capable and hold it there with reasonable stability, it will have made a signal contribution to economic welfare throughout the world. The American contribution from this direction will outweigh any help the United States might supply from any other single source. By reducing its tariffs and so opening the American market to the specialties of other lands, this contribution can be appreciably augmented. A further contribution to a better and more stable economic world after the war lies in a wholehearted participation in the schemes adopted by the representatives of forty-four nations at Bretton Woods. And if it appeared necessary, as might well develop, these could be supplemented in a flexible fashion by a national stockpiling of critical materials. But from both the domestic and the international points of view, the economic task of the postwar period, beyond the very immediate difficulties of the transition from war to peace, is to achieve a stable national income at a level approximating the potentialities of the American economy.

APPENDIX: CAPITAL AND THE THEORY OF INTER- NATIONAL CAPITAL MOVEMENTS

I. THE USE OF THE WORD "CAPITAL"

IN NO small measure the difficulty in understanding the process of international capital movements arises from the metaphysical and picturesque language used to describe it. This is especially true of the word "capital" in describing international capital movements; it is used in several different senses and often authors pass from one meaning to another without warning to the reader. Let us therefore first try to clarify the different senses in which the word capital is used.

1. If one speaks of the "capital" of an individual or a business enterprise the reference is typically to the sum total of wealth or asset holdings. Moreover, we often speak of these wealth holdings in a gross sense or a net sense, i.e., the sum mentioned may be either before or after deduction of whatever claims "others" or "outsiders" have.¹ So, for example, when we speak of a corporation getting "more capital" through borrowing or the sale of shares we mean (usually) that it is getting more assets. Initially these assets may be money. But typically the company does not want to hold money but the things money can command: buildings, machinery, inventories, etc. Yet every day we speak of companies needing, borrowing, or procuring "more capital" when we mean more assets. So also we speak of countries or regions needing "more capital" when we mean more assets. But more of this anon.

¹ In accounting terms the phrase net worth is used to indicate the *net* value of the capital while the value sum of the total assets would be the *gross* capital.

When we turn from the point of view of a *segment* of the economy or nation, such as a person, a corporation, an industry, or a region, to that of the economy *as a whole* the connotation of the word capital becomes both narrower and wider. It narrows in that a host of claims of individuals and corporations against one another simply cancel out. The mortgage that Mr. Ames holds on Mr. Brown's house is simply a way of indicating the division of rights between them as to the house and its use. There is only one house. So it is with bank deposits and bonds, with accounts receivable and promissory notes, and all the other claims that define the rights and obligations of "persons": they cancel out (almost) in a reckoning for all the residents of the country. (The reason they do not entirely cancel out is that the total claims of foreigners against nationals may be greater than the total claims of nationals against foreigners.) While in a summation of capital for the whole economy claims largely disappear, certain new items make their appearance. In particular, public buildings, highways, harbor installations, etc., would have to be added in. Partly because intangibles largely cancel in a reckoning for the nation as a whole, it is customary to speak of "real capital" as we have done throughout the present book. And instead of viewing them always as a congeries of "things" it is often convenient to reduce them to a common denominator in value terms.

Hence the connotation of the word capital depends upon the point of view assumed. In the private sense, money and claims are included. From a national point of view, these largely cancel out and do not appear in the final total. But from both points of view, there is a consistent focus upon the resources available to, and at the command of, the individual or nation respectively.

We cautioned above that in computing the total real capital of any one country not all intangibles were excluded. This qualification was necessary to allow for claims and obligations between countries. At any given moment of time the citizens of one country are likely to hold claims against the citizens of another, and vice versa. If, on net balance, foreigners have a greater claim against nationals than nationals have against foreigners, then a computation of the total real capital resources of the country must include a deduction in the amount of this net balance. If the net balance is the other way about, there must be an addition. For the net

claim of nationals against foreigners constitutes a part of the country's real resources in the sense that it is the power to demand real things in the form of goods or services for its own nationals.² Of course these claims may have different "due dates" and may arise in a variety of ways. Since international capital movements are in a measure the creation and extinguishment of such claims, we cannot neglect them here.

2. The "capital market" in any country is the market in which new and old security issues are bought and sold.³ The market as such consists of financial houses, perhaps banks, security dealers in bonds and shares, and buyers and sellers of new and old issues. Private corporations desiring funds for expansion or to refund a maturing issue here offer their securities for sale. Here also the state may sell its obligations to its citizens or to foreigners. And at all times there is buying and selling of those bonds and shares, in all their multitudinous forms, which have been sold or "floated," as the phrase has it, at an earlier time. This, in substance, is the capital market upon whose activity or quiescence human welfare so frequently turns.

The term capital market, be it observed, is *not* used to designate the market for real capital goods such as locomotives, machines, ships, and the like. Production and sale of these capital instruments may be brisk or flagging, according as the capital market is active or dull. But the capital market as such does not refer to these items, but rather to the market for shares and bonds generally, or, not uncommonly, only to the market for new issues in particular. A large volume of new issues may activate the steel works and intensify burrowing in the mines. The connection has often been observed. Yet the capital market itself is something else again: it is *not* the market in which real capital instruments are traded but the market where new and old security issues are bought and sold.

² A more accurate statement would be that some nationals have a net claim against citizens of other countries. Unless there are intergovernmental loans the "nation" as such does not have a claim.

³ The line of distinction between the capital market and the "money market" is scarcely sharp. In general, however, the latter has reference to the market where bills, acceptances, short-term obligations, etc., are bought and sold. The capital market on the other hand refers to longer term obligations. While any distinction between long-term and short-term is bound to be arbitrary, a year is usually taken as the breaking point.

II. THE PROCESS OF INTERNATIONAL CAPITAL MOVEMENTS

THE commonplace observations just made concerning "capital" and the "capital market" may dispel some of the confusion from which the discussion of international capital movements and international borrowing and lending occasionally suffers.

Let us assume that a group of citizens of country D (the "debtor" country in what follows) offer for sale in the capital market of country C (the "creditor" country) a new issue of securities.⁴ Let us assume further that these securities are bonds of a corporation in D and that the sale is successful. What has occurred so far? Certain persons in D *via* a corporation, have obtained buying power (bank deposits) in country C in exchange for which they have given a promise to pay the principal sum borrowed at maturity with interest in the interim at an agreed rate. A transaction has occurred in the capital market of country C which has international aspects and implications. Up to this point no "movement" has occurred other than a transfer of the ownership of certain bank deposits in C from nationals to foreigners. Yet in a sense a transfer is a movement; and it would be customary to describe what occurred as an international capital movement, or more correctly, as the first of several steps in an international capital movement.⁵ A more precise statement, however, would be to the effect that the movement or transfer thus far was monetary in character, suggesting thereby that something more was involved.⁶ Indeed the relation-

⁴One could rewrite what follows in terms of an increased desire on the part of investors in C to make investments abroad in D. Indeed, as a description of what has happened in times past in the development of backward areas it might be more appropriate to indicate that the lenders usually took the initiative. Yet in the postwar period the initiative will likely reside with borrowers in the sense that they will be pressing their needs in a vigorous fashion.

⁵One reason for speaking of the first step as a capital movement is that the full complement of steps may require a long time. Borrowers and lenders have occasionally overlooked the delayed consequences of international capital movements to their disaster.

⁶Cf. the following, "... the first thing which happens when an international capital movements is to take place, is usually that part of the monetary buying power of one country is put at the disposal of people in the other (the monetary transfer). This first step is eliminated only where goods are sold abroad on long-term credit or in case imports of goods are financed by permanent

ship between the international capital movement in a manner analogous to that employed in discussions of transactions on the "capital" market. The immediate focus is securities and bank deposits, not capital instruments.

Let us return to our example. The borrowers in D now have bank deposits in C. At this juncture two extreme cases set the limits to the possibilities of what the D borrowers may desire to do with their newly acquired bank deposits. Assume for the present that C and D are the only two countries. In that instance the first possibility is that the D borrowers may wish to spend their bank deposits entirely on commodities or services available in country C.⁷ If this be the fact, then the D borrowers acquire their merchandise, arrange for its delivery to their place of business in D, and, except for the interest and principal payments to be made in the future, the transaction is closed. The initial monetary transfer has been succeeded almost immediately by a transfer of goods. Exports from C to D are larger than they would have been had no international capital transaction occurred. Observe, however, that there is no requirement that the goods movement consist of machines or capital instruments. It may just as well consist of wheat or canned goods or services of some kind. There is no logical necessity that any particular *kind* of export effect the real transfer.

The alternative possibility at the other extreme of course is that the borrowers in D desire to spend the whole proceeds of their loan in their own country D. Clearly in this instance the possible sequences of development are more numerous than in the previous case, depending upon the assumptions that are made concerning the volume of employment in C and D, the foreign exchange relations between them, the composition of aggregate demand in the two countries between domestic and foreign goods, and others. Primary developments must also be distinguished from secondary or induced developments. Let us first consider the case of stable exchange rates,⁸ with less than full employment in country D, and

loans after the shipment of the goods." Iversen, C., *Aspects of the Theory of International Capital Movements*, Copenhagen and London, 1935, p. 45.

⁷ The reasons why they may desire to spend in C may be various. For instance, the goods required may not be available at home or not available at such attractive prices.

⁸ The assumption of stable foreign exchange rates implies that there are banks, a central bank, or an exchange fund willing to increase or decrease

inquire as to the primary effects of a loan negotiated in C but which the borrowers desire to spend wholly in D.

The borrowers in D will sell their newly acquired bank balances in C to the banks in their own country, receiving in exchange bank balances in D currency. Since we may assume that, they then proceed with their project by hiring laborers and buying domestic materials. But the increase in employment generated in D means an increase in domestic incomes which, in turn, are spent on consumption or investment. The rises in incomes, however, is likely to cause two further consequences. First, some of the increased consumption will be a consumption of imported goods, and hence tend to raise imports from C (the only other country under present assumptions). Second, with a higher level of incomes possibly a larger fraction of the goods usually sent abroad (or of goods both consumed at home and sent abroad) will be purchased by domestic consumers.⁹ Thus commodity exports from D may fall off somewhat. But the combination of these—a tendency in D for imports to rise and exports to fall—will serve to diminish the bank balances in C that the banks in D purchased from the original D borrowers. In other words, the expansion of investment and incomes in D, through their effect upon imports and exports, converts the monetary transfer from C to D into a real transfer, i.e., a movement of commodities. Yet here again no logic requires that the goods transferred be of any particular kind and type.¹⁰

If substantially full employment prevails in D, the sequence is slightly altered. The immediate expenditure in D of additional funds will serve to raise prices above the level that would have otherwise prevailed. The additional expenditure cannot increase aggregate output in the short run because we have assumed that unemployment is negligible. Increased expenditure can only raise prices. But a rise in prices in D relative to those in C will increase

their (or its) foreign exchange holdings or gold holdings when others offer to sell or buy foreign exchange at given prices.

⁹ The rise in incomes in D is assumed to be unaccompanied by a corresponding rise in incomes in C. If incomes also are rising in C no such shift need necessarily occur. As we shall note subsequently the loan would tend to have the reverse effect in C, i.e., to lower incomes and employment.

¹⁰ The transfer theoretically could be effected, of course, entirely through a decline in exports from D to C. C lends to D and C simply reduced its imports. Its gross exports need not rise.

D's imports and diminish its exports, and thereby eliminate the balances abroad in C accepted by the D banks when they supplied deposits at home in D to the original borrowers.¹¹

If we drop the simplifying assumption of only two countries the essence of the analysis is not substantially changed. Let us assume that the D borrowers wish to spend their C balances not in C nor at home in D but in a third country X. In this case an additional step is introduced. The banks in C must be willing to reduce their deposit liabilities through a (temporary) reduction in their holdings of balances in country X. The D borrowers then procure their merchandise and proceed homewards. But what of the real transfer? Clearly it has already occurred between X and D. But what of C, the lending country? Unless the banks in C are willing to see their balances in X permanently impaired (and there is nothing in the loan transaction *per se* to suggest this) then they will take steps to restore their balances in X to their previous level. (Under flexible exchange rates they will perhaps charge higher prices for X currency.) Imports from X will thereby be discouraged and exports to X from C will be stimulated. Both work in the direction of restoring the C banks' balances in X through raising exports from C to X relative to imports from X to C. One could also supplement the classical argument here by assuming that the purchases of the D borrowers in X stimulate employment and incomes in X and so tend to raise imports in X relative to exports. Similarly one could argue that the reduction in bank deposits in C¹² would react unfavorably on either employment and incomes and hence on imports, or upon prices, if there is little unemploy-

¹¹ If we assume flexible, instead of stable, exchange rates the argument need be altered only slightly. The essential modification is that the adjustment need not occur entirely through changes in incomes or prices but the exchange rate itself, i.e., the price of one currency in terms of another, can also ease the process. The borrowing in C for expenditure in D will tend to raise the price of D currency in terms of C. That is to say, more units of C currency must be paid for a unit of D currency or, as it is expressed with almost equal frequency, less D currency is obtainable for a unit of C currency. Regardless of the mode of expression the effect of the loan transaction on the rate is to raise imports and diminish exports in D and vice versa in C. A single loan transaction unless of great size, however, would be unlikely to alter the exchange rate perceptibly. A stream of foreign borrowing with flexible exchange rates is another matter.

¹² Bank deposits are reduced because the banks in C have surrendered foreign assets against the reduction of domestic liabilities, the deposits.

ment, with a similar result.¹³ In any case the money transfer is followed by a real transfer, in this case three cornered, such that exports minus imports in C, the lending country, is a greater figure than before the loan was granted. The real transfer is from C to X to D, although the time sequence in the case discussed was actually from X to D as one step and from C to X as another.

We stated initially that the relationship between the money transfer and the real transfer could be elucidated by an examination of two extreme cases: first, where all the proceeds of the loan are to be spent in the lending country; second, where the proceeds are to be spent entirely in the borrowing country. It is self-evident, of course, that these are merely two "pure" cases at the extremes. What would be likely to occur in the real world would be some combination of these two extremes, with the complication of the borrowed funds being spent partly in third or fourth countries. Yet it should be clear from what we have suggested thus far that the sequence would be a mixture of the pure cases already considered. The net result would be the same; a monetary transfer succeeded by a real transfer, unless one introduces the special assumption that for some reason the borrower wishes to hold idle balances in the lending country, at home, or in third countries.

III. CAPITAL MOVEMENTS, TRADE, AND THE BALANCE OF PAYMENTS

1. THE discussion in the preceding section was in a measure unrealistic. For we spoke mostly in terms of a single loan transaction and endeavored to trace it through the steps by which the monetary transfer was translated into a "real" transfer. But, in fact, what one finds in the real world is not a single transaction but a stream of lending over longer or shorter periods of time. A country that is industrializing or reconstructing with foreign assistance will be a borrower over several years or even over several decades. During a large portion of the nineteenth century the United States, for

¹³ This assumes that the reserve position of the banks determines their lending policy. But this need not be the case. An "offsetting" policy, such as followed by the Federal Reserve authorities in the '20's would avoid the need for any deflation in C as a consequence of the lending transaction.

example, was a net borrower on long-term account. Railroads, canals, state governments, mining enterprises, etc., were undertaking projects which were partly financed by borrowing abroad. The aggregate of these ventures occasioned a stream of loans over a long period. The United States was an importer of capital.

It is clear that a stream of borrowing from abroad can assume a variety of time shapes. A country might borrow the same sum each year for a number of years. It might borrow very heavily at first but taper off rapidly after a few years. And, at least theoretically, a country might start by borrowing a very small sum which increased each year at some constant rate. The number of patterns is infinite mathematically, although the three indicated are perhaps the main types.¹⁴

The pattern of foreign borrowing actually assumed by any country will obviously depend on several factors. It will depend upon the character of the projects being undertaken, how long it takes to complete them, how many are being started simultaneously and at what cost, and a variety of other factors. Perhaps in general it is true that, within limits, a few loans make other loans appear necessary. Finally, and on the other side of the picture, there is obviously the willingness of lenders to make loans available. There is no reason to suppose that lenders always will be disposed to provide funds in the amounts and on the terms that borrowers would prescribe if they could.

Regardless of these considerations, however, long-term borrowing operations will in almost all instances pass through two stages. In the first stage the stream of new lendings exceeds the interest remittances and the repayments of principal. There is a net inflow of capital. In the second stage new borrowings fall short of service charges. There is a net outflow of capital from the (previously) borrowing country. When any borrowing country passes from the one stage to the other will depend upon the time shape of the borrowings from abroad, the rate of interest on the loans, and the schedule of principal repayments. With any given time shape of the new borrowings, Stage II will be the sooner reached the higher the interest charge and the shorter the amortization period. And vice versa. If at any time new lendings from abroad should

¹⁴ By allowing the possibility of "waves" and discontinuities the pattern types can be indefinitely multiplied theoretically.

fall to zero, then, of course, Stage II is immediately attained. This was the lot of many capital importing countries soon after 1929. They had been previously borrowing heavily abroad and suddenly no new loans were to be had. If new loans are in an ever-increasing crescendo, then of course Stage II need never appear. But this case seems so unlikely to occur in practice that there is little point in speculating on it.

2. These two stages in the borrowing and lending operations over time usually reflect themselves in the flow of exports and imports. As we have already described in Section II, the monetary transfer becomes a "real" transfer. A lending country (whose balance of payments was previously in equilibrium) would be expected to show an excess of exports over imports during Stage I of the international capital movement. During Stage II, imports would tend to exceed exports. And conversely for the borrowing country.¹⁵ In Stage I the lending country would have an "active" or "favorable" trade balance. In Stage II, when the flow of interest and principal charges exceeds new lendings the trade balance would be "passive" or "unfavorable." And again conversely for the borrowing country. Stage I is associated with an "active" trade balance for the lender. Stage II with a "passive" balance.

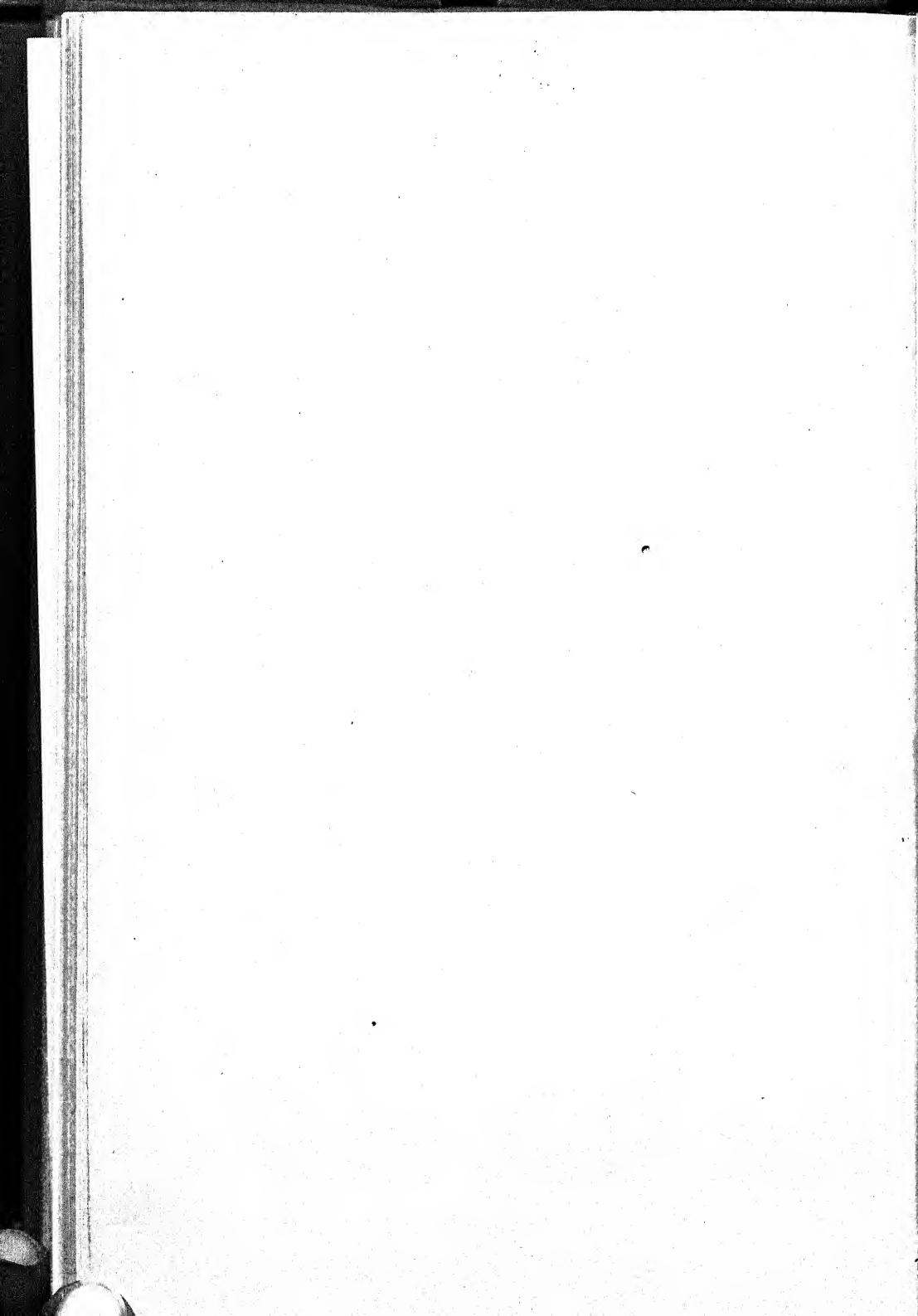
Because international transactions are not confined to commodity exports and imports it is usually more convenient to speak of a country's balance of payments than of its balance of trade. Commodity imports are not the only occasion for making a payment abroad. Nor do commodity exports alone give rise to a right to receive payment from abroad. Payments for "services" rendered by the citizens to foreigners clearly occasion a payment. Shipping services, commercial services, insurance, brokers' fees, and the like are familiar examples. Similarly, the tourist traffic is essentially an "invisible" export from the point of view of the country receiving, housing, and entertaining the tourists. It is an export of services. Finally, we have the payments on interest and capital account because of loans made between persons in different countries.

The whole of the payments due in either direction constitute for any country its balance of payments. Realistically considered

¹⁵ It is necessary to postulate a previous balance of payments equilibrium in order to state the above as we have done. Pure cases are of course rarely met with in the real world.

it is a flow of payments in one direction compared with a flow of payments in the opposite direction. At any instant of time the "balance" is simply the difference between the two. When the balance of payments is considered as a comparison between two flows of payments in opposite directions it is self-evident that it is not a static thing but a fluid mass representing the country's past history, current stage of development, and present undertakings. Loan transactions undertaken at an earlier time, for example, are reflected in the present balance of payments. Expansion of new industries or the decline of old industries will help to mold the balance of payments in days to come. Fresh new loans alter the present balance of payments almost at once but they also affect the balance of payments over future time. The balance of payments will reveal and reflect the past, present, and impending economic developments between the particular country and the world at large.

The consequence^{is}, therefore, that a country's balance of payments will necessarily be affected by long-term borrowing or lending abroad. A country which lends abroad by the very act itself makes funds available to foreigners. These are then used, unless idle balances are to be held, to purchase services or merchandise for export. The movement of commodity trade is affected. Similarly, the flow of interest receipts and principal repayments gives the country which previously lent abroad a claim on the rest of the world for goods and services. But because of "invisible items" in the balance of payments the effect of international lending need not be clearly discernible in the statistics of exports and imports. In some cases it will. But it need not.



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